CONSTRUCTION NEWS

EDITORIAL COMMENT, PERSONALS, ENGINEERING SOCIETIES, ENGINEERING SCHOOLS, INDUSTRIAL NOTES, PUBLICATIONS,

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For an extremely vague clause in a specification it would be hard to excel the following:

> The mortar used in the masonry and brick work shall be made of hydraulic cement and sand, or lime and sand, or a combination of hydraulic cement, lime and sand, according as the Engineer may direct. It shall be mixed in such proportions and made and used in such manner, and within such time after mixing as he shall prescribe and direct.

Many words might have been saved had the author of the foregoing clause said:

> Mortar for masonry shall be made of such materials and proportions as the Engineer directs.

The contract for the work in which this mortar clause appears, covers masonry in culverts, tunnels, etc., on a short railway; and in other respects the specifications are well drawn and clear. Hence we were led at first to suppose either that the company intended to furnish the cement, or that the amount of masonry was so inconsiderable as possibly to justify the above vague mortar clause. It appears, however, that neither of these suppositions is correct. We find that:

> The cement or lime for mortar shall be of a quality approved by the Engineer and furnished by the Contractor.

We also find that the quantities of masonry are by no means inconsiderable.

Where the yardage of masonry is very small it is admissible to make the specification very brief, but never at the expense of definiteness as regards the more important items. With the same number of words as in the mortar clause above quoted, the kind of cement, and the proportion of sand could have been given, to say the least; and in a few more words the engineer could have instructed the inspector as to the proper mixing of the mortar. Specifications, it should never be forgotten, are often the sole text book that an inspector has, and they should be written with a view to instruct the inspector as well as to guide the contractor in making his estimates of cost.

The Unit System of Cost Keeping on Concrete and Masonry Work.

In our last issue we expressed the opinion that the key to a successful system of cost keeping on contract work is to be found only by devising some way of measuring the work done each day. To require an ordinary foreman to look after his gang of men and at the same time measure up and compute the day's work is almost certain to result in confusion and failure to accomplish the desired result where the computation of quantities is at all difficult. Bearing this in mind, the contractor or his engineer should, where possible, divide the work to be done into classes, and each class into simple units which can be designated by numbers.

Take, for example, the contract for a steel-concrete building. With the blue prints for the work at hand, the contractor may divide the work into sections or units. A post or pillar of given form and height is numbered No. 1; a beam of given size is numbered No. 2; an arch, or a given part of an arch, is numbered No. 3; a cornice is numbered No. 4; a section of wall between expansion joints is numbered No. 5; and so on, dividing the work into units, preferably units separated by expansion joints, or units for which separate forms are made. A draftsman is then instructed to make a small sketch of each of these units, omitting all details, so as to give merely the outlines in such form that any foreman cannot fail to understand what particular section, or unit, the sketch refers to. Number each of these small sketches to correspond with its number on the blue print of the working drawing; and give the sketches, or tracings of them, to each foreman having charge of the work to which they relate. Each foreman is furnished with a note book in which he enters the number of men under him and their respective duties; and, at the end of each day, he notes down the number of units, say, 10 No. 5, and 4 No. 1, completed by the gangs under him. This note book he turns in at the office the next morning and receives a duplicate note book, so that in the two note books used alternate days, he keeps a complete record of daily progress. The time-keeper, or book-keeper, at the office, enters a copy of the work done into a permanent record book; and by multiplying the yardage in each unit by the number of units, he obtains the total yardage of each gang for the day.

In a similar manner, record is kept by the carpenters who are making forms for each unit of work, and by the boss of the gang erecting and taking down forms. No foreman, boss or skilled man who keeps these records is required to do more than tally the number of units built each day and the number of hours of labor required in the building. Thus men who are not accustomed to computing yardage are not called upon to do that which they would do only with great reluctance and then in a way not to be relied upon.

As a check upon the records of the foremen, the number of batches of concrete, and the number of bags of cement used, are recorded at the mixer by the man in charge of mixing. If the mixer is of the type that revolves in dumping, a tappet fastened to its axle can be made to operate an automatic counter of the bicycle odometer type. Indeed, the automatic recorder, which costs only a few cents, may be used far oftener than it is used in recording the number of car or skip loads of material that pass a given point.

Masonry walls are not always divisible into units, even by the setting of pegs at frequent intervals horizontally, especially where the walls are so wide that the progress of a day's work is scarcely noticeable. Moreover, the irregularity of the bed of rubble backing, as it is left at night, makes it doubly difficult to determine the day's yardage of masonry laid. The facing of cut stone, however, may be measured with comparative ease. One man, who may be the timekeeper, can measure up each header and stretcher, and mark with paint upon it, a serial number, if it has not already some distinctive mark upon it. This measuring may be done at the quarry where the stones are dressed, or at any other convenient place where the cut stone is stored. As each cut stone is placed in the wall, the mason records its number in a note book. He makes no attempt to measure its size for the purpose of calculating its contents, but merely notes its number and prefixes H, if used as a header—all others being assumed to be stretchers. The timekeeper, or whoever made the original measurements and numbering of each block of stone, has computed its contents in cubic yards and has recorded the same in an office book; so that when the mason's note book is turned in each day, it is the work of but a few minutes to determine the yardage of cut stone laid by him and his gang during the previous day.

The backing still remains unmeasured, and even if no attempt were made to measure it on the work each day, there would still be some measure of it in the face stone record, for the backing laid usually bears a quite definite ratio to the cut stone. The backing, however, even on heavy dam work, can be approximately measured each day by recording the cubic yardage of mortar used. On any given class of masonry the per cent. of mortar in the backing does not vary materially from week to week, or even from day to day, provided the same percentage of spalls be used in the mortar of the vertical joints. The number of skips or batches of mortar is readily ascertained by a simple system of tallying at both ends of the route. On a large job there will be a large number of separate gangs of men laying backing, and, perhaps, all the mason gangs will be served by one mortar mixing machine. Hence it is necessary that one member in each gang tally the number of buckets or skips of mortar received during the day. He may do this with a conductor's punch and a card, or otherwise; but if any rivalry is to be aroused among the different gangs it is essential that each gang record its own mortar allotment for the day. Indeed, as stated in our last issue, no cost-keeping system fulfills its cheif function until it is possible to determine by the system exactly what each gang of men is doing daily. Thus, and thus only, are men placed in a treadmill where to fall behind means disgrace if not discharge. The writer has found that certain mason bosses will make a practice of punching out a few extra buckets of mortar, to show what good fellows they are; but this practice soon ceases when they are informed that a little detective work is being done because yesterday's total of buckets used on the work exceeded by a given number the buckets that left the mixer.

A record of the number of skips of backing stone may be kept as a further check, but such loads vary in size far more, of course, than the size of the mortar buckets. Hence there is little to be gained by requiring each mason to record them, although he should be required to record the skip loads of spalls, which loads should be purposely made as uniform in size as practicable. A great amount of mortar can be saved, as every contractor knows, by the use of spalls, and the contractor should therefore encourage the use of spalls by offering the mason some bonus for all over a given ratio of spalls to mortar used.

This last suggestion indicates one of the many incidental economic gains arising from the use of the system of unit cost accounting. In fact it will surprise any contractor who has not used such a system to learn how many little leaks and losses will be discovered when method of systematic cost keeping is introduced. The general idea prevails that the primary object of cost recording is to enable the contractor to bid on future work with great accuracy; hence many contractors, who are already well informed as to the general run of "living prices," have regarded the expense of keeping unit costs as being a needless one. We have therefore tried to emphasize the fact that the slight expense of keeping unit costs is offset many fold by the increased efficiency of the men, and by the saving of materials.

PERSONAL.

Mr. C. W. Bray has been appointed Chief Engineer of the American Sheet & Tin Plate Co.

Mr. Frederick C. Kunz, a consulting engineer in the Bridge Department of New York City, has resigned.

Messrs. Frank S. McCollum, John C. Shotts and Andrew B. Barr have been appointed Water Commissioners of Yonkers, N. Y.

Mr. W. L. Dickinson, of Springfield, Mass., formerly Superintendent of Streets of that city has been elected President of the Connecticut Valley Highway Association.

Messrs. Lehr & Bascom, Engineers and Architects, have removed their office from the Y. M. C. A. Bldg., to the Young Bldg., Allentown, Pa.

Mr. Howard E. Huntington has been appointed General Manager of the Los Angeles Ry. Co., to succeed the late John A. Muir, of Los Angeles, Cal.

Mr. A. Stierle, Superintendent of Public Works, of Porto Rico, will resign his position to take charge of the Lighthouse Department of that island.

Mr. Richard Stevenson has been appointed Manager of Purchases and Supplies of the Southern Pacific Co., in place of Mr. R. P. Schwerin, resigned.

Mr. T. W. Harris has been elected President of the Eugene Water Co., of Eugene, Ore., and Mr. R. McMurphy, Secretary, and Mr. S. H. Friendly, Treasurer.

Mr. N. D. Maher, General Superintendent of the Norfolk & Western Ry., has been appointed General Manager of that road, with headquarters at Roanoke, Va.

Mr. Henry F. Baldwin, Chief Engineer of the Chicago & Alton Ry., has resigned to become Vice-President and General Manager of the Du Pont Powder Co., with headquarters at Philadelphia, Pa.

Mr. Frank L. Getman, recently Resident Engineer for the new water-works system at Ithaca, N. Y., has gone to East Orange, N J., as Resident Engineer for .Mr. C. C. Vermeule, Consulting Engineer.

Mr. John MacCormack, late Chief Engineer American Stoker Co., has opened offices at 52 Broadway, New York. Mr. MacCormack will resume his former practice as a contracting engineer, and will also act as Eastern Agent for the Springfield Boiler & Mfg. Co., Springfield, Ill.

Mr. G. M. Gest, 277 Broadway, New York, contractor and manufacturer of conduits, has been elected a member of the Union League Club, of New York. Mr. Gest was in charge of the first electric car operated in Baltimore twenty years ago.

Mr. R. D. Roy, formerly of the Osborne Engineering Co., has bought the business of Mr. G. S. Patterson, Civil and Mining Engineer, with offices in the Opera House Block, Terre Haute, Ind. Mr. Patterson will go to West Virginia to engage in the coal business.

Mr. I. W. Geer has been appointed Superintendent of the Terre Haute & Logansport and the Logansport & Toledo railways, with office in Logansport, Ind., to succeed Mr. J. O. Crockett, who goes to Chicago as Assistant to General Manager Miller of the Chicago, Rock Island & Pacific Ry.

The Western Mining & Real Estate Bureau has established its headquarters in the Robinson & Allen Bldg., Lewistown, Mont. The Bureau is composed of Messrs. N. J. Littlejohn, O. F. Wasmansdorff, C. E., W. M. McClean, M. E., H. L. Shaw, A. C. S., and Arthur Kelley, assayer.

Mr. Isaac A. Hopper, President of the Isaac Hopper & Sons Contracting Co., of New York, has been appointed Superintendent of Buildings of New York City, to succeed Mr. Henry S. Thompson, In accepting the new office Mr. Hopper is said to have severed all connection with the contracting company.

Mr. W. D. Dickinson, Superintendent of the Boston & Great Falls Electric Light & Power Co., the Great Falls Street & Power Co., and the Boston & Great Falls Land Co. for the past 13 years, has tendered his resignation, to take effect March 1. It is expected that Mr. Dickinson will leave Great Falls, Mont., and make his home in California.

Mr. T. H. Bailey Whipple has returned to the Sawyer-Man Electric Co. to the position which he left last summer in order to assist in the reorganization of the Sales Department of the Nernst Lamp Co., of Pittsburg. Mr. Whipple was formerly General Sales Agent with the Buckeye Electric Co., of Cleveland, O., and of the Jandus Electric Co.

Mr. D. D. Carothers, who has been appointed Chief Engineer of the Baltimore & Ohio R. R., to succeed Mr. J. M. Graham, on Feb. 1, has been inspecting the company's property prior to taking up his new duties. Mr. Carothers leaves the position of General Superintendent of the Baltimore & Ohio Southwestern R. R. to assume the duties of his new office.

The friends and associates of Thomas A. Edison have taken steps to found a medal to be awarded annually to the graduating student in electrical engineering presenting the best thesis on an original subject in that branch of engineering. The medal will be styled the Edison Medal and will be inaugurated to commemorate the 25th anniversary of the introduction and commercial development of the incandescent lamp. It will be intrusted to the American Institute of Electrical Engineers.

The Spanish War Veteran's Association will hold a military athletic tournament in the armory of the 22d Regiment, N. G. S. N. Y., on March 5, the proceeds of which will be distributed among the commands concerned. Prizes have been donated by President Roosevelt, Hon. Elihu Root, Secretary of War, Gen. Robert Shaw, Assistant Secretary of War, Admiral Dewey, Geo. L. Gillespie, Chief of Engineers, Gen. Wm. Crozier, Chief of Ordnance, and by many other well-known public and private officials.

OBITUARY.

A. F. Boyton, President of the Clearfield Water Co., of Clearfield, Pa., died in that town on Jan. 19, aged 61 years.

Selwyn M. Taylor, Mining Engineer, was suffocated by gas in an attempt to rescue the miners entombed by a fire-damp explosion in the Hardwick mine of the Allegheny Coal Co. at Cheswick, Pa., on Jan. 25.

John N. Drummond, ex-Vice-President of the Wabash R. R., died in Chicago, Ill., on Jan. 19, aged 78 years. Mr. Drummond was Secretary and Treasurer of the company that built the first railroad between Rochester, N. Y., and Niagara Falls. He was Secretary and Treasurer of the Wabash during its construction, and was afterward elected First Vice-President, which office he resigned in 1880.

G. H. Lennon, Civil Engineer, of Redwood City, Cal., was murdered with dynamite during the week of Jan. 11 on the island of Kauai, Hawaiian Islands. The crime is thought to have been committed by Japanese gamblers who were turned out of the construction camp at the Makewell ditch by Mr. Lennon, after having fleeced many of the Japanese workingmen. The dynamite was placed under his bed with a time fuse attached.

ENGINEERING SOCIETIES.

COMING MEETINGS.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Jan. 26, 27, 28. Annual meeting at Montreal, Canada. Secy., C. H. McLeod, 877 Dorchester St., Montreal.

CONNECTICUT SOCIETY OF CIVIL ENGINEERS.
Feb. 9, 10. Annual meeting at Hartford, Conn. Secy., J. F. Jackson, New Haven, Conn.

AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION.
March 15 to 17. Annual meeting at Chicago. Secy., L. C. Fritch, 1562 Monadnock Block, Chicago.

MASTER CAR BUILDERS' ASSOCIATION.—A preliminary circular from the Standing Committee on Tests of M. C. B. couplers states that the new M. C. B. coupler contour lines which were adopted by letter ballot to take effect Jan. 1, 1904, involve similar changes in the gage for new couplers and the gage for new knuckles. The committee has made no alteration in the general design of these gages, but has changed the contour lines to conform to the new M. C. B. coupler contour which came into effect Jan. 1, 1904. Mr. R. N. Durborow, Pennsylvania R. R., Altoona, Pa., is Chairman of the committee.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—The annual dinner will be held on Feb. 11, at 7 o'clock p. m., in the ballroom of the Waldorf-Astoria, 34th St. and Fifth Ave., New York City. The guest of honor will be Mr. Thomas A. Edison, and it is expected that an opportunity will be given for members to meet Mr. Edison at an informal reception at half-past six. The Edison Medal Association will present to the Institute at that time the fund raised to found an Edison Medal, celebrating the 25th anniversary of the perfection and successful introduction of the incandescent lamp.

RAILWAY SIGNALING CLUB.—At the meeting held in Chicago, Jan. 12, with the President, Mr. J. C. Mock (M. C. R. R.) in the chair, there was considerable discussion over the work of the committees. Mr. Hope (C., St. P., M. & O. Ry.) recommended that the Committee on Organization be dropped, as railways are not likely to reorganize their systems to conform to the committees recommended organization. In answer to this, however, it was shown that the committee might do very important educational work along this line.

In a discussion on the hope of keeping interlocking plants clear of snow, Mr. Rhea stated that on the Pennsylvania Lines agreements are made whereby this road can clear the entire crossing, if the other roads do not promptly attend to their share of the work. The Pennsylvania Lines then bill the other roads for their share of the expense. Mr. Markley (C. & E. I. Ry.) thought each road should do its own clearing, but on the other hand it was pointed out that at small plants it may be more economical for one set of men to clean the entire plant.

The other subject of discussion was the use of double-light signals for high-speed routes, as is the practice on the Boston & Albany, Chicago & Northwestern, Union Pacific and a few other roads. The object is to prevent confusion with street or other lamps, but Mr. Rhoads (C., C., C. & St. L. Ry.) thought this object might not be attained, since two lights at about the same height and not very far apart might have the appearance of a combination signal.

BOSTON SOCIETY OF CIVIL ENGINEERS, SANITARY SECTION.—There will be a meeting of the Sanitary Section of the Boston Society of Civil Engineers, Wednesday, Feb. 3, 1904, at 7 o'clock p. m., at Hotel Nottingham, Huntington Ave. (Copley Square), Boston.

The topic of the evening will be the use of the septic tank in connection with sewage disposal works, and short papers or discussions are expected from George A. Carpenter, City Engineer of Pawtucket, R. I.; Andrew J. Gavett, City Engineer of Plainfield, N. J.; Ha P. Eddy, Superintendent of Sewers, Worcester, Ma H. Goodnough, Chief Engineer of the Massachu Board of Health; Prof. W. T. Sedgwick, of chusetts Institute of Technology; H. W. Clark of the Massachusetts State Board of Health. P. Kinnicutt, of the Worcester Polytechnic Ins others.

An informal dinner will be served at the hote at 6 o'clock, tickets for which may be obtained immediately previous to the dinner.

At this meeting and dinner all those who are in the objects of the Section are invited to be an opportunity will be given to make application bership.

The first annual meeting of the Section for of new members, the election of officers and tion of other business will be held March 2. hoped that those who desire to become mem Section will make application previous to the The topic for discussion at the March meeting flushing of sewers. William S. Johnson, Clerk

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), ding sheets (B. S.), may be seen at the office of gineering News Publishing Co., 220 Broadway, New York:

Bids close Jan.	Work.	Place.	On file.	See issue.
29	Lighig system	Ft. McPherson	S	1-7
30	Dry-dock	New York, N. Y.	S	12-17
30	Water tower, etc.	Key West, Fla.	S	12-31
Feb.				
*1	Port improvements	Philippines	S. & B. S.	11-20
*2	Sewers	New Orleans, La.	S. & B. S.	1-7
*2	Cement	Marquette, Mich.	S. & B. S.	1-7
*3	Dry-dock	St. John, N. B.	P., S. & B. S.	12-10
6	Piers	Philadelphia, Pa.	S	1-14
4	Dredging	San Diego, Cal.	S. & B. S.	1-14
6	Sea wall	Philadelphia, Pa.	S	1-14
6	Chain shed & loft	Portsmouth, N.H.	S	1-14
*9	Naval supplies	Washington, D.C.	S	1-21
*13	Light systm	Ft. D.A.Russell, Wyo.	P., S. & B. S.	1-21
*16	Bridge	Washington, D. C.	P., S. & B. S.	1-7
*18	Heating Bldgs.	Washington, D.C.	P	1-21
20	Chimney	Washington, D. C.	S	1-21
24	Excavation	Chicago, Ill.	P., S. & B. S.	11-5
*25	Dredging	Detroit, Mich.	S	1-14
27	Culvert	Boston, Mass.	S	1-28

*Work advertised in Engineering News.

NOTE.—We are desirous of securing specifications and bidding sheets (and plans when not too bulky) of pending work for file in our New York office for the benefit of contractors or others who may be interested in the work. If more sets than one are sent us we shall be pleased to distribute these to contractors who ask for them. When the work is advertised in Engineering News, note that the plans are filed with us will be added to the advertisement without cost.

LIST OF CONTRACTS PENDING.

Bids close.	Work.	Place.	See issue.
	LIGHT, HEAT AND POWER PLANTS.		
Jan. 29.	Electric l't plant, etc.	Ft. McPherson, Ga.	Jan. 7
Feb. 3.	Power house	Agricultural College, Mich.	Jan. 21
Feb. 3.	Electric light plant	Canton, Mo.	Jan. 21
Feb. 13.	Electric lighting	Cheyenne, Wyo.	Jan. 14
	Advertised, Eng. News, Jan. 14 to Feb. 11		
Feb. 18.	Gas plant	Pierre, S. Dak.	Jan. 28
Feb. 20.	Electric light plant	Girard, Kan.	Jan. 21
Feb. 24.	Gas plant	Chattanooga, Tenn.	Jan. 28
	Advertised, Eng. News, Jan. 28 to Feb. 25		
	BRIDGES.		
Jan. 28.	Bridges (2)	Iron Mountain, Mich.	Jan. 21
	Advertising, Engineering News, Jan. 21.		
Jan. 28.	Bridges	Pender, Neb.	Jan. 21
Jan. 29.	Bridges	Canton, S. Dak.	Jan. 28
Jan. 30.	Bridge work	Toledo, O.	Dec. 31
Jan. 30.	Bridge	Jefferson, O.	Jan. 21
Feb. 1.	Bridges, (2)	Kansas City, Kan.	Dec. 31
	Advertised, Eng. News, Dec. 31 to Jan. 28		
Feb. 1.	Bridge	Chillicothe, Mo.	Jan. 21
Feb. 1.	Bridge	Cadillac, Mich.	Jan. 28
Feb. 2.	Bridge work	Bloomfield, Ind.	Jan. 28
Feb. 2.	Bridge	Fulton, Mo.	Jan. 28
Feb. 3.	Bridge work	Buffalo, N. Y.	Jan. 21
Feb. 6.	Bridge	Cincinnati, O.	Jan. 21
Feb. 10.	Bridge	Houston, Tex.	Dec. 31
Feb. 11.	Bridge work	Chardon, O.	Jan. 28
Feb. 15.	Bridge span	Dillon, Mont.	Jan. 7
Feb. 16.	Bridge	Washington, D. C.	Jan. 7
	Advertised, Eng. News, Jan. 7 and 14.		
Feb. 16.	County bridge work	York, Neb.	Jan. 7
Feb. 19.	Bridge	Portland, Ore.	Jan. 21
Feb. 19.	Bridge	Warren, O.	Jan. 28
Mar. 1.	Bridges	Natchitoches, La.	Jan. 28
	Advertised, Eng. News, Jan. 28 to Mar. 3		
Mar. 7.	Bridge	Boonville, Ind.	Jan. 28
	BUILDINGS.		
Jan. 29.	School building	Buffalo, N. Y.	Jan. 21
Feb. 1.	Building plans	Baton Rouge, La.	Jan. 14
Feb. 1.	Court House	Camden, N. J.	Jan. 31
Feb. 1.	Heating apparatus	New York, N. Y.	Jan. 28
Feb. 1.	School	Salina, Kan.	Jan. 28
Feb. 1.	Building	Savannah, Ga.	Jan. 28
Feb. 2.	Library	Cedar Rapids, Ia	Jan. 28
Feb. 2.	Building	Richmond, Va.	Jan. 28
Feb. 2.	Building	St. Louis, Mo.	Dec. 17
Feb. 2.	Court house	Syracuse, N. Y.	Jan. 7
	Advertised, Eng. News, Jan. 7 and 14.		
Feb. 2.	Bldg (see Mfg. Plants.)	Barrie, Ont.	Jan. 14
Feb. 3.	Building	Buffalo, N. Y.	Jan. 14
Feb. 4.	Jail	Salinas, Cal.	Jan. 21
Feb. 4.	Bakery (Mfg. Plants)	San Antonio, Tex.	Jan. 21
Feb. 5.	Buildings	New York, N. Y.	Jan. 28
Feb. 8.	Building and jail	Park Rapids, Mich.	Jan. 28
Feb. 9.	Building	Johnson City, Tenn.	Jan. 14
Feb. 9.	Jail	Bedford, Ind.	Jan. 14
Feb. 11.	Post office	Waterloo, Ia.	Dec. 31
	Advertised, Eng. News, Dec. 31 and Jan. 7.		
Feb. 15.	Court house	Valdosta, Ga.	Dec. 31
Feb. 15.	Court house	Newnan, Ga.	Dec. 31

Feb. 15. Buildings, Bloomington, Ind. .....Jan. 14
Feb. 15. Court house, Newnan, Ga. .....Jan. 21
Feb. 15. Building, Las Vegas, N. Mex. .....Jan. 28
Feb. 15. School building, North Bay, Ontario.....Jan. 28
Feb. 16. Building, Portsmouth, N. H. .....Jan. 14
Feb. 18. Heating and plumbing, Washington, D.C..Jan. 21
Advertised, Eng. News, Jan. 21 to Feb. 18.
Feb. 20. School building, Great Falls, Mont. .....Jan. 28
Feb. 26. Post office, Atlantic City, N. J. .....Jan. 28
Feb. 23. Building, Burlington, Vt. .....Jan. 14

WATER SUPPLY AND IRRIGATION.

Jan. 28. Water tank and trestle, San Antonio, Tex..Dec. 31
Advertised, Eng. News, Dec. 31 to Jan. 28.
Jan. 28. Filtration plant, Anderson, Ind. .....Jan. 21
Jan. 30. Water tank, Key West, Fla. .....Dec. 31
Jan. 30. Water pipe, etc., Philadelphia, Pa. .....Jan. 28
Jan. 31. Water-works, Port Arthur, Ont. .....Jan. 28
Jan. 31. Cisterns, Port Townsend, Wash. .....Dec. 31
Feb. 1. Pumping engine, etc., Milwaukee, Wis. ....Dec. 24
Feb. 2. Water and sewer system, St. Paul, Minn...Jan. 14
Feb. 2. Distilling plant, Fort Monroe, Va. .....Jan. 14
Feb. 2. Stop boxes, Dayton, O. .....Jan. 28
Feb. 5. Water pipe, Grand Rapids, Mich. .....Jan. 28
Advertised, Eng. News, Jan. 28 and Feb. 4.
Feb. 10. Water-works, The Dalles, Ore. .....Jan. 28
Feb. 10. Stand-pipe, Baltimore, Md. .....Jan. 28
Advertised, Eng. News, Jan. 28 and Feb. 4.
Feb. 11. Castings, etc., Saginaw, Mich. .....Jan. 28
Feb. 15. Pumping engines, etc., East Orange, N.J...Jan. 28
Advertised, Eng. News, Jan. 28 to Feb. 18.
Feb. 15. Irrigation canal, Alberta, Man. .....Jan. 14
Advertised, Eng. News, Jan. 14 to Feb. 18.
Feb. 18. Tank and trestle, St. Louis, Mo. .....Jan. 28
Feb. 23. Water tunnel, Santa Barbara, Cal. .....Jan. 7
Advertised, Eng. News, Jan. 7 to Feb. 4.
Feb. 24. Pumping plant, Chattanooga, Tenn. .....Jan. 28
Advertised, Eng. News, Jan. 28 to Feb. 25.
Mar. 9. Water-works improvemts, Ligonier, Ind...Jan. 14
Advertised, Eng News, Jan. 14, 21 and Feb. 18.

SEWERAGE.

Jan. 28. Sewerage, Ligonier, Ind. .....Jan. 14
Jan. 30. Sewerage, Seattle, Wash. .....Jan. 14
Feb. 1. Sewer, Healdsburg, Cal. .....Jan. 21
Feb 1. Sewers, Long Island City, N. Y. .....Jan. 28
Feb. 2. Sewers, Findlay, O. .....Jan. 28
Feb. 2. Sewerage, St. Paul, Minn. .....Jan. 14
Feb. 2. Sewers, etc., New Orleans, La. .....Dec. 3
Advertised, Eng. News, Dec. 3 to Jan. 28.
Feb. 2. Sewerage pumps, Buffalo, N. Y. .....Jan. 21
Feb. 4. Sewer construction, Berwick, Pa. .....Jan. 7
Advertised, Engineering News, Jan. 7.
Feb. 10. Sewers, Brooklyn, N. Y. .....Jan. 28
Feb. 10. Sewers, Vailsburgh, N. J. .....Jan. 28
Advertised, Eng. News, Jan. 28 and Feb. 4.
Feb. 11. Sewer materials, Saginaw, Mich. .....Jan. 28
Feb. 13. Sewer construction, Seattle, Wash. .....Jan. 28
Feb. 15. Sewerage, Fulton, Mo. .....Jan. 14
Feb. 20. Sewer construction, Washington, D. C. ....Jan. 7
Advertised, Engineering News, Jan. 7.
Mar. 5. Sewerage apparatus, Washington, D. C....Jan. 21
Advertised, Engineering News, Jan. 21.
Apr. 15. Sewers, Duluth, Minn. .....Jan. 28

STREETS AND ROADS.

Feb. 1. Road work, Spencer, Ind. .....Jan. 14
Feb. 1. Refined asphalt, Detroit, Mich. .....Jan. 14
Feb. 1. Macadam road, Rushville, Ind. .....Jan. 21
Feb. 1. Paving, Peoria, Ill. .....Jan. 28
Feb. 1. Paving, Montreal, Que. .....Jan. 28
Feb. 3. Gravel road, Indianapolis, Ind. .....Jan. 28
Feb. 4. Street work, Easton, Pa. .....Jan. 28
Feb. 9. Gravel road, Toms River, N. J. .....Dec. 10
Advertised, Eng. News, Dec. 10 to 24.
Feb. 10. Paving, Cohoes, N. Y. .....Jan. 28
Advertised, Eng. News, Jan. 28 and Feb. 4.
Feb. 10. Paving, grading, Freeport, Pa. .....Jan. 28
Advertised, Engineering News, Jan. 28.
Feb. 11. Macadamizing, St. Bernard, O. .....Jan. 28
Feb. 15. Roads, Chattanooga, Tenn. .....Jan. 14
Feb. 16. Street paving, Canal Dover, O. .....Jan. 7
Feb. 16. Gravel road, Bethlehem, Conn. .....Jan. 21
Feb. 17. Paving, Greenville, O. .....Jan. 28
Feb. 18. Wooden paving, Newark, N. J. .....Jan. 28
Feb. 20. Macadamizing streets, Morristown, Tenn...Jan. 28

MISCELLANEOUS CONTRACTS.

Jan. 28. Dredging, Boston, Mass. .....Jan. 14
Jan. 28. Pile driving, Des Moines, Ia. .....Jan. 14
Jan. 28. Lumber, Newark, N. J. .....Jan. 28
Jan. 30. Dry-dock, Washington, D. C. .....Dec. 17
Feb. 1. Port improvements, Philippines (U.S. Poss). Nov. 26
Advertised, Eng. News, Nov. 26 to Dec. 31.
Feb. 1. Steamers (2), St. John, N. B. .....Jan. 21
Feb. 1. Pier, cement, Long Beach, Cal. .....Jan. 21
Feb. 1. Levee reconstruction, Sacramento, Cal....Jan. 21
Feb. 1. Ditch, Cannelton, Ind. .....Jan. 28
Feb. 1. Deep sea cable, Washington, D. C. .....Jan. 28
Feb. 1. Ditches, Clarion, Ia. .....Jan. 28
Feb. 1. Ditch, Gebo, Mont. .....Jan. 28
Feb. 2. Cisterns, San Diego, Cal. .....Jan. 28
Feb. 2. Road machinery, etc., Jeffersonville, Ind..Jan. 28
Feb. 2. Ditch, La Grange, Ind. .....Jan. 28
Feb. 2. Fire hose, East Grand Forks, Minn. .....Jan. 21
Feb. 2. Portland cement, Duluth, Minn. .....Jan. 7
Advertised, Eng. News, Jan. 7 to Feb. 4.
Feb. 2. Naval supplies, Washington, D. C. .....Jan. 21
Advertised, Eng. News, Jan. 21 and 28.
Feb. 3. Dredging, etc., Chicago, Ill. .....Dec. 10
Feb. 3. Dry-dock, St. Johns, N. B. .....Dec. 31
Advertised, Eng. News, Dec. 31 to Jan. 28.
Feb. 4. Dredging, Los Angeles, Cal. .....Jan. 14
Feb. 5. Steel wire, Washington, D. C. .....Jan. 28
Feb. 6. Pier extension, Washington, D. C. .....Jan. 14
Feb. 7. Boiler, Perth Amboy, N. J. .....Jan. 21
Advertised, Engineering News, Jan. 28.
Feb. 8. Steel and iron, Norfolk, Va. .....Jan. 14
Advertised, Eng. News, Jan. 14 to Feb. 11.
Feb. 9. Dam and bank protection, Cincinnati, O....Jan. 14
Feb. 9. Naval supplies, Washington, D. C. .....Jan. 21
Advertised, Eng. News, Jan. 21 and 28.
Feb. 9. Mine cases, Washington, D. C. .....Jan. 21
Advertised, Eng. News, Jan. 21 and 28.
Feb. 9. Hopper cars, Winnipeg, Man. .....Jan. 28
Advertised, Engineering News Jan. 28.
Feb. 10. Steel projectiles, Washington, D. C. .....Jan. 28
Feb. 10. Pmpg plant, etc. (Misc. Con.), Mendosia, Ill. Jan. 21
Feb. 10. Ditch, etc., Jacksonville, Ill. .....Jan. 7
Feb. 11. Aqueduct, Italy (Foreign) .....Dec. 3
Feb. 11. Dredging, Duluth, Minn. .....Jan. 28
Feb. 12. Scows, etc., Cincinnati, O. .....Jan. 28
Feb. 13. Wharf, dredging, etc., Ottawa, Ont. .....Jan. 28
Feb. 15. Pumping engine, Oil City, Pa. .....Dec. 31
Advertised, Eng. News, Dec. 31 to Feb. 11.
Feb. 15. Pine timber, Nashville, Tenn. .....Jan. 14
Advertised, Eng. News, Jan. 14 to Feb. 11.
Feb. 15. Gasometer, Netherlands (Foreign) .....Jan. 14
Feb. 15. Breakwater, Chicago, Ill. .....Jan. 21
Advertised, Engineering News, Jan. 21.
Feb. 16. Work rooms (Mfg. Plants), Washington, D.C. Jan. 21
Advertised, Eng. News, Jan. 21 and 28.
Feb. 18. Steel shed, New Orleans, La. .....Jan. 28
Advertised, Engineering News, Jan. 28 and Feb. 4.
Feb. 20. Chimney, Washington, D. C. .....Jan. 28
Feb. 23. Stone gateway, National Military Home, O. Jan. 28
Feb. 23. Lightship, Chicago, Ill. .....Dec. 31
Feb. 24. Excavation work, etc., Chicago, Ill. .....Jan. 21
Feb. 25. Removing boulders, etc., Detroit, Mich. ..Jan. 14
Advertised, Eng News, Jan. 14, 21 and Feb. 18.
Feb. 27. Culvert Washington, D. C. .....Jan. 28
Feb. 29. Portland cement, Washington, D. C. .....Jan. 28
Advertised, Engineering News, Jan. 28 to March 3.
Mar. 8. Excavation, Detroit, Mich. .....Jan. 21
Advertised, Eng. News, Jan. 21 to March 12.
Mar. 9. Dredging, Washington, D. C. .....Jan. 28
Mar. 10. Dredging, Detroit, Mich. .....Jan. 21
Advertised, Eng. News, Jan. 21 to March 12.
Mar. 15. Electric railway, Cuba (U. S. Poss.) .....Jan. 14
Mar. 16. Filling, Chicago, Ill. .....Jan. 28
Advertised, Engineering News, Jan. 28.
Mar. 17. Electric railway, New Zealand .....Nov. 19
Apr. 2. Water-works, Cuba (U. S. Poss.) .....Jan. 14
May 1. Railway, Chili (Foreign) .....Dec. 3
May 2. Railway, South Australia .....Feb. 5
Jun. 27. Locomotives, Italy (Foreign) .....Dec. 3
July 1. Sewers, water-works, etc., Chili (Foreign). Dec. 24
July 1. Sewers, paving, etc., Chili .....Dec. 31
Advertised, Eng. News, Dec. 31 to Jan. 28.

RAILWAYS.

ATCHISON, TOPEKA & SANTA FE.—This company is said to have acquired control of the Richmond Belt Line of Port Richmond, Cal. Road covers four miles, and will afford switching facilities. New grain houses are to be built.

BALTIMORE & OHIO.—Extensive improvements are contemplated in the yards at Grafton, W. Va., and work on the same will start as early as the weather will permit.

BINGHAMTON & SOUTHERN.—This company, which is chartered under the above name to build the New York state end of the Pittsburg, Binghamton & Eastern (Penn.) road, to run via Towanda, Canton, Wellsboro and Ansonia to Pittsburg, has made application to the New York state railroad commissioners for permission to build. The road is surveyed to Williamsport.

BIRMINGHAM, MONTGOMERY & NEW ORLEANS.—T. C. Purdy, Birmingham, Ala., writes that the Dallas Construction Co., of which Mr. Purdy is Gen. Mgr. and W. D. Yates, Birmingham, Ch. Engr., is conducting the surveys for this line, having already finished a reconnoissance. Road will be 280 miles long, and will touch Bessemer, Ala.; Centreville and Montgomery, with lines from Centreville to Meridian, Miss., and from Greensboro, Ala., to Billingsley, also. James H. Smith is Pres. and J. E. White, Ch. Engr.

BUTTE COUNTY R. R.—Work is being pushed on the construction of this line, now owned by the Chico & Northern R. R. Co., but which will become the property of the Diamond Match Co. upon its completion. The Diamond Match Co. has a saw mill at Sterling and a factory at Barber, and this new line will be used principally for transporting its timber and products. A street railway in Chico, Cal., is also planned.

CHICAGO, INDIANA & EASTERN.—Harry Drew, Pres., has stated that as soon as the weather permits this road will be extended to Hagerstown. It now operates between Muncie and Converse, Ind. Fremont Wilson is Ch. Engr., Matthews, Ind.

CHICAGO & NORTHWESTERN.—Business men of Douglas, Wyo., have been advised (not officially) that this company is preparing to extend its Chadron-Casper line northwest into the Big Horn Basin. Several parties in that section have been asked, it is said, to bid for 500,000 ties in the mountains south and west of Douglas, which is an indication of intention mentioned above. E. C. Carter is Ch. Engr., Chicago.

CHICAGO, ROCK ISLAND & PACIFIC.—Active work on extension from Dawson, N. Mex., to Pueblo, Colo., will be started this spring. Shops will be removed from near Colorado Springs to Pueblo. Independent line from Limon, Colo., to Denver proposed. W. L. Darling is Ch. Engr., Chicago, Ill.

COAL BELT RY.—Preliminary work resumed at Harrisburg, Ill., by J. J. Hart, Gen. Mgr., and B. S. Crane, Ch. Engr. Survey completed from Marion to Saline county line and will be pushed further. Committee appointed to secure right of way. Line is expected to be finished by Jan. 1, 1905. Harrisburg, Ill., is headquarters.

COLORADO, OKLAHOMA & SOUTHERN.—W. D. Cardwell, Weatherford, O. T., writes that preliminary surveys will start Jan. 25. Arrangements have been completed for the construction capital. Line will be 100 miles in length. C. M. Cade, Shawnee, is Pres.; Chief Engineer not yet appointed.

COLORADO-TEXAS.—A line of railway is planned from Durango, Colo., to El Paso, Tex., and surveys are now under way. The backers of the road are thought to be officials of Oliver Iron Co., a branch of the U. S. Steel Corporation. Estimated cost of road, $8,000,000.

CUMBERLAND VALLEY.—A cut-off from a point near the Mason and Dixon Line to near where the Cumberland Valley road crosses the Potomac River below Williamsport, Pa., is said to be under consideration. The new line would eliminate the heavy grade and curve at Maugansville and the grade south of Hagerstown, Md. T. J. Brereton is Engr., Chambersburg, Pa.

ERIE R. R.—Surveys are reported to be going on for a short-cut from Port Jervis, N. Y., to Jersey City, 40 miles. The route is via Cuddebackville, Bloomingburgh and Middletown. W. L. Derr is Act. Ch. Engr., New York.

EVANSVILLE & TERRE HAUTE.—Rights of way are being purchased around Terre Haute, Ind., for the belt line for that city. F. P. Jeffries is Gen. Mgr., Terre Haute.

GRADE CROSSING.—St. Louis, Mo.—Plans have been prepared by Bridge Engineer Galer, of the Street Dept. of St. Louis, for the elimination of the grade crossing at Tower Grove Ave. and Old Manchester road. It is planned to depress the tracks of the Missouri Pacific and Frisco roads.

GREAT NORTHERN.—A map has been issued by this company, showing a projected line from Wenatchee, Wash., up the Columbia River to the San Poil River, and thence up that river to Republic. S. H. Hogeland is Ch. Engr., St. Paul, Minn.

GREAT NORTHERN.—This company is reported to be back of the plan to improve the terminal facilities of all the roads entering Minneapolis, Minn., and that of building a new station at Washington Ave. and Fourth St. About $500,000 is to be expended. A. H. Hogeland is Ch. Engr., St. Paul, Minn.

HARRISBURG & SOUTHERN.—Deed filed at Harrisburg, Ill., for construction of a line from Harrisburg to Marion, from Harrisburg to a point on the Ohio River, in Hardin County, and from Harrisburg to Galatia, Saline County. Harrisburg is headquarters.

INDIANAPOLIS SOUTHERN.—A corps of engineers under T. H. Hazelrigg, Ch. Engr., has started for the field between Bloomfield, Ind., and Switz City, and after completing the location between those points will continue to Linton. Indianapolis is company's headquarters.

KANSAS CITY, MEXICO & ORIENT.—Contract reported let by Chihuahua, Mex., papers to G. Webb for constructing the third 50 kilometers east of that city. Mr. Webb has completel the first and second 50 kilometers.

LEWISTON & SOUTHERN.—Col. Judson Spofford, Pres., was recently at Grangeville, Idaho, looking over the proposed line between that city and Lewiston, to be 85 miles long. Engineers are now at work on the survey through the Nez Perce prairie.

LOUISVILLE & NASHVILLE.—A contract has been closed with Sparks & Williams, Mt. Vernon, Ky., for $100,000 worth of stone ballast for the Knoxville extension from Jellico. The contractors will put up a large crushing plant.

MINNESOTA CENTRAL.—Reported that the promoters of this road plan to commence work on a bridge over the Minnesota River at Mankato, Minn., about March 1 and to begin work on the road a month later. Conferences have been held with contractors regarding the construction. H. B. Cady, Minneapolis, and C. H. Mackenzie, Gaylord, Minn., are interested.

MISSOURI, KANSAS & OKLAHOMA.—This company (M. K. & T. property) has filed in Oklahoma a mortgage for $5,000,000 covering the construction of the M. K. & T. extension from Stevens, I. T., to Guthrie and Oklahoma City, and Coalgate, I. T., to Oklahoma City, and from Wybark, I. T., to Moming, Okla.

MISSOURI PACIFIC.—Company has decided to make extended improvements west of Salina, Kan., this year. About 100 miles of track will be rebuilt with 85-lb. rails, in place of 56-lb. rails. Cost of rails will be about $413,000, ties about $118,000, and the work about $110,000. The cost of bridge work and construction outside of items mentioned will bring the total cost up to $1,000,000. It is expected that the entire 400 miles of track from Hoisington, Kan., to Pueblo, will be rebuilt or improved during the coming year. H. Rohwer is Ch. Engr., St. Louis, Mo.

NEWPORT EXTRACT CO.—This company will build a short road from Landisburg, Pa., to the forestland in Spring and Tyrone Townships, Perry County, in order to bring timber to its plant at Newport, Pa.

NEW YORK, TEXAS & MEXICAN.—E. B. Cushing, Asst. to Pres., Houston, Tex., writes that this line (Sunset Route of Southern Pacific) will run from Midfield to El Campo, thence to Altair and to Glidden. The rights of way will be secured by W. A. Miller, Jr., Amarillo, N. Mex., and we believe that actual construction has begun at points along the line. W. G. Van Vlick is Pres., Houston.

NORTHERN PACIFIC.—Surveys have been made for a line from Sumas to Westminster to connect with the Vancouver, Westminster & Yukon line. It is probable that within a month contracts will be let for building the line. E. J. Pearson is Ch. Engr., St. Paul, Minn.

ORANGE & NORTHWESTERN.—An extension to either Marshall or Shreveport, La., north from Buna, Tex., is under consideration. John W. Maxcy, Houston, Tex., is Ch. Engr.

OREGON RIVER & NAVIGATION CO.—Reports from Spokane, Wash., state that Deeks & Deeks have received a contract for building the extension from Riparia to Lewiston, and that construction will soon start.

OZARK & CHEROKEE CENTRAL.—This line, which is owned by the St. Louis & San Francisco, and runs from Fayetteville, Ark., to Okmulgee, Ind. Ter., is to be extended to Shawnee, Okla., within six months. E. W. Boynton is Ch. Engr., Muskogee, I. T.

PENNSYLVANIA R. R.—It is said that President Cassatt has approved plans for improvements and betterments between Pittsburg and New York which will represent a cost of $70,000,000. This is exclusive of the $50,000,000 tunnel and terminal project for New York city. The improvements will be of a general character and will include a 4-track road from Jersey City to Pittsburg, and a 6-track system for part of this distance, the elimination of grades, the replacing of old bridges with substantial stone and steel structures, the straightening of the line through the Allegheny Mts., and improvements to the Altoona-Pittsburg line. The cost of a bridge over the Delaware River at Trenton will exceed $1,000,000, and the viaduct at Rockville, seven-eighths of a mile long and carrying four tracks, will cost a like sum. The new line through the Alleghenies will save one mile in five and reduce grades from 12 to 15 ft. in 1,000 to about 3 ft. Half a dozen cuts through solid rock, each about 100 ft. long, will be made. About $10,000,000 will be expended on the track between Altoona and Pittsburg, which will include track elevation through Pittsburg and the establishment of five new freight yards. Many miles of new siding will be built on this division ——Improvements are proposed for the Ebensburg & Cresson branch, to include new heavy steel rails, the straightening of track, new roadbed, etc. ——Plans have been completed for a change of tracks at Market St., Harrisburg, Pa., and the installation of new switches from the passenger depot to North St. W. H. Brown is Ch. Engr., Broad St. Station, Philadelphia, Pa.

PENNSYLVANIA R. R.—This company has several hundred men between Crestline and Toledo Junction, O., engaged in constructing a third track between those points. It is said that a large system of yards will be established between Mansfield and Bucyrus, O. The distance is about 25 miles. W. H. Brown is Ch. Engr., Philadelphia, Pa.

RALEIGH & PAMLICO.—Work has begun on a line about 95 miles long, from Raleigh to Washington, N. C., through Wilson and Greenville. This new line will ultimately be extended to Englenhard, on Pamlico Sound. Convicts will be employed in grading.

RICE BELT R. R.—John W. Maxcy, Ch. Engr., Binz Bldg., Houston, Tex., reports that two engineering corps are engaged in the survey, one at Sinton and the other from Galveston. The route as surveyed runs by way of Angleton, Bay City, Port Lavaca and Refugio. It crosses Matagorda Bay, where 17,000 ft. of bridging will be required. A rich agricultural country will be traversed. It is not determined when actual construction will be started.

SAN DIEGO, CAL.—Geo. W. Marston, of this city, has started the work of relocating the route for the Terminal R. R. Co. of this city, and the San Diego Eastern R. R. will proceed. Engineer Richards will soon have 20 men in the field working on the surveys. The San Diego Eastern road will be about 217 miles long, and the terminal line about five miles in length. Sites for the terminals in San Diego are already purchased. Ample funds for construction are said to be on hand.

SAN DIEGO & EASTERN.—This project will be reorganized and be capitalized at $10,000,000. Line will be built across the southern part of California with termini at San Diego, on the coast, and Yuma, Ariz., through a rich mining country. C. W. French, of Cleveland, O., is said to be interested.

SAN PEDRO, LOS ANGELES & SALT LAKE.—The directors were to meet in Salt Lake City, Utah, last week for the purpose of awarding contracts for final construction work and completing definite plans for the through connection from that city to Los Angeles, Cal. H. Hawgood, Los Angeles, Cal., is Ch. Engr.

SOUTHERN PACIFIC.—Mexican Government is reported to have granted concession to this company for a line to run the length of the Peninsula of Lower California. It will pass through La Paz and a number of other towns, terminating at Cape San Lucas.

SOUTHERN R. R.—W. H. Wells, Ch. Engr. Construction, 1360 Pennsylvania Ave., Washington, D. C., advises us that he has not been instructed to make any surveys for the talked-of line to reach the ore deposits of Granville Co., N. C., and Halifax Co., Va.——The congested traffic on the single-track line between Washington and Atlanta will make it necessary for the double-tracking of that road. Work is already nearing completion on a second track from Washington to Charlotteville, and as soon as finished it will be extended to Atlanta. Later a double track is to be put down between Birmingham and Atlanta.

TEXAS.—A project is reported in El Paso papers to be on foot for the construction of a railroad to run into the coal fields towards Durango, Colo., and to the Cooney mines, which are located 85 miles from Silver City.

TONOPAH & RHODES.—McLean & McSweeney, Tonopah, Nev., who recently secured the contract for building this 60-mile line, have sub-let to Clarence M. Oddie and J. T. Overbury 10 miles of grading.

TRAVERSE CITY & PENINSULA.—A bond for $2,500 has been filed by L. K. Gibbs, Pres., with the council of Traverse City, Mich., to insure the completion of that road within a year.

WABASH.—There is talk of removing the division headquarters at Peru, Ind., to Logansport. This will mean the removal of shops from Peru to Logansport, also.

WABASH R. R.—J. R. Ramsey, Pres., states that work on Buckhannon & Northern R. R. between Belington and Pennsylvania state line has been stopped only temporarily, and will be resumed in either March or April.——It is reported that this company will put in 32 miles of double track between Brooklyn and Decatur, Ill., in two stretches, between Litchfield and Worden, 32 miles, and Brooklyn and Poag, 12 miles. W. S. Newhall is Ch. Engr., St. Louis, Mo.

NEW INCORPORATIONS AND CHARTERS.

DENVER & KANSAS NORTHERN.—Kan.—Incorporated at Topeka, with $1,000,000 cap. stock, to build six lines in northwestern Kansas, aggregating 1,400 miles. Work of construction is to be carried on in the spring. E. J. Williams, Hodston, Kan.; E. W. H. Lake, Atchison, and J. S. Parks, Topeka, are incorporators.

GRANITE CITY, ALTON & EASTERN.—Ill.—Incorporation papers filed; cap. stock, $5,000. Granite City, Ill., is principal place of business. Line will run from last-named city to other points in Madison county. Ralph Wintermann, St. Louis, Mo.; R. A. Bostwick, Granite, and John D. McAdams, Alton, are incorporators.

KANSAS, ELK CITY & TEXAS.—The incorporators of this road, mentioned in our reports of Jan. 22, include I. C. Thurmond, P. C. Hughes, E. M. Scannell and G. F. Patterson, of Elk City, Okla., and W. C. Welton, Titusville, Pa. The company is incorporated with $2,000,000 cap. stock to build a railway line from near Kiowa, Kan., through Oklahoma by way of Elk City, to Eagle Pass, Tex., about 300 miles.

LONE ROCK & LA VALLE.—Wis.—Incorporated to build a road in Richland and Sauk counties, to be 40 miles long. Cap. stock, $25,000.

MINNEKAHTA & RED CANYON.—S. Dak.—Articles of incorporation filed with $10,000; projected line to be narrow gage, four miles long, in Fall River county. Geo. A. Clark and C. J. Patton, Keystone, S. D., are incorporators.

SAN DIEGO & IMPERIAL CONSTRUCTION CO.—Cal.—Incorporation papers have been filed by this company, which will build the road from San Diego to Yuma, Ariz., for the San Diego & Eastern R. R.; cap. stock, $100,000. C. W. French, Homer H. Peters and V. A. Dehuel are incorporators, all probably of San Diego.

TEXAS, NEW MEXICO & WESTERN.—Okla.—Incorporated to build a line from Dallas, Tex., to Deming, N. Mex., to afford the Missouri Pacific an outlet from the northeast to the southwest.

UNADILLA VALLEY RY.—N. Y.—Incorporated with $200,000 to operate the property and franchises of the Unadilla Valley Ry. Co., recently sold under foreclosure. Lewis R. Morris, Wirt Howe, B. B. Lawrence and F. S. Young, New York city, are interested.

STREET AND ELECTRIC RAILWAYS.

FOXCROFT, ME.—Wm. P. Oakes, C. E., Foxcroft, has made survey between twin towns and Sebac Lake regions for parties who are considering advisability of putting in electric railway.

RUTLAND, VT.—David Fox, Jr., Rutland, Ch. Engr., writes us that proposed 8½-mile electric line from Fairhaven to Whitehall, N. Y., is projected, but nothing is being done at present. Name of company is the Vermont & Whitehall Ry. Co.

COHASSET, MASS.—Norwell & Scituate Street Ry. Co. has petitioned for right to extend its tracks to N. Y., N. H. & H. R. R. station in this town.

MAYNARD, MASS.—John W. Ogden, Mgr., writes us that preliminary surveys are made and right of way obtained for Lowell, Acton & Maynard Street Ry. Co. Half of capital stock has been paid in, and contract for part of line let to M. A. Coolidge, Fitchburg, Mass. Two miles of the road are built and in operation since last September. Projected length of road is 14 miles and route is Maynard, Acton, Chelmsford, Lowell, Sudbury and Framingham. W. R. Dame, Clinton, Mass., is Pres.

PITTSFIELD, MASS.—Pittsfield Electric Street Ry. Co. has petitioned selectmen of Lanesboro for an extension of its line to that town. The extension is to be made to connect Williamstown and Pittsfield by trolley, the local company meeting the Hoosac Valley Co., North Adams, at the New Ashford-Williamstown line. The Hoosac Valley Co. has already petitioned for an extension to the New Ashford line.

PITTSFIELD, MASS.—Aldermen are said to have passed orders rescinding locations granted Pittsfield Street Ry. Co. and also rescinding approval of all plans.

MONTVILLE, CONN.—Referring to proposed loop line of Montville Street Ry. Co., from Uncasville to Palmertown and Oakdale, we are informed that loop will not be constructed unless company is compelled to do so by order of Railroad Commissioners. H. Bigelow, Norwich, Conn., is Supt.

STAMFORD, CONN.—Stamford Street Ry Co. has been petitioned by residents of Glenbrook for extension of its lines in that place.

WATERBURY, CONN.—Connecticut Railway & Lighting Co., J. E. Sewell, Gen. Mgr., Bridgeport, Conn., has about completed arrangements with property owners on route of its proposed extension of East Main St. line to Cheshire town line.

ALBION, N. Y.—Albion Electric Ry. Co., according to reports, is to resume work, as soon as the frost is out of the ground, on its extension. Three miles of its proposed road between Rochester and Lockport are completed.

BATAVIA, N. Y.—Stated that work is to be started early in spring on proposed trolley line of Genesee & Orleans Electric R. R. from this place to Oak Orchard Harbor. Chas. E. Hart, Albion, N. Y., is Pres.

BROOKLYN, N. Y.—Brooklyn Heights Ry. Co. has placed order with the Westinghouse Electric and Mfg. Co., of Pittsburg, Pa., for 700 railroad motors, 200 of which will be used for elevated railroad, and 500 for the surface road.

BROOKLYN, N. Y.—American Railway Traffic Association has been incorporated with $1,000,000 capital, and, it is said, has entered into contract with Brooklyn Rapid Transit Co. by which it will operate cars over that company's tracks at night for the transportation of freight and handling of garbage and ashes for city. The company is said to have at hand large number of cars especially constructed for the business. John L. Wells and Ashley T. Cole are Directors.

HUNTINGTON, N. Y.—Hearing is to be held Feb. 1 to consider application of Edwin B. Fiske for franchise for street railway in the town. Huntington-Amityville franchise was secured by Mr. Fiske, and he is now asking for east and west privilege through this place.

NEWARK, N. Y.—Rochester, Syracuse & Eastern R. R. Co. has been granted franchise for running electric cars through this village.

NEWBURGH, N. Y.—W. Johnston McKay, Secy., Intervale Traction Co., writes us that surveys have been made, rights of way obtained and capital subscribed for proposed electric line. Date for letting contract not yet announced. Projected length of road is 25 miles. E. R. Emerson, New York, N. Y., is Pres., and V. K. Mills, Goshen, N. Y., is Ch. Engr.

NIAGARA FALLS, N. Y.—Council has been considering franchise for cross-town line on 18th and 19th Sts. for International Ry. Co.

SYRACUSE, N. Y.—J. G. Tracy, 304 Gridley Bldg., writes us that all surveys have been made for ten-mile electric line of Syracuse & Oneida Lake Electric Ry. Co., and that rights of way and franchise have been secured. Capital for construction has been partly secured. Company is not ready as yet to state when contracts will be let. Proposed route is Salina, Clay and Cicero. F. L. Barnes, 304 Gridley Bldg., is Pres.

ABSECON, N. J.—Reported that electric road is to be extended from Absecon to Egg Harbor via Mays Landing and Vineland.

SPRINGFIELD, N. J.—Surveys have been begun for private right of way for Morris County Traction Co. through this township, owing to concessions demanded by town for granting franchise. Trolley company proposes to construct line between Dover and Elizabeth. Carl J. Seiler, Summit, N. J., is Engr.

COATESVILLE, PA.—Lancaster & Coatesville Street Ry. Co., A. C. Baldwin, Pres., Cains, Pa., has had surveys about completed and will start work early in spring on electric line from Witmers Bridge to Coatesville. Power house will be erected at Bird-in-Hand, Pa., and complete power equipment will be installed. No contracts let as yet.

HEREFORD, PA.—Reading & Allentown Street Ry. Co. has secured right of way for trolley line from Lyons to East Texas, along East Penn R. R. The link will connect with the Kutztown trolley line and will make a short circuit between Reading and Allentown, besides giving trolley communications to half a dozen towns.

HUMMELSTOWN, PA.—Work is to be started soon by Hummelstown & Campbelistown Street Ry. Co. on its eight-mile line. H. H. Heerr, Engr., 108 E. King St., will take bids for power house and complete line of equipment.

MAUCH CHUNK, PA.—Hazleton, Weatherly & Mauch Chunk Traction Co. has sold $1,000,000 of bonds for construction of its railway to R. E. Lopez & Co., Real Estae Trust Bldg., Philadelphia, and Thos. F. Deegan, Engr., Real Estate Trust Bldg., Philadelphia, is preparing specifications for power house and equipment for about 1,500 HP.

MEDIA, PA.—Axel Engstrom, Engr., Bullitt Bldg. Philadelphia, Pa., will prepare plans for extension of Philadelphia, Morton & Swarthmore Electric Ry. Co., from Moylan to Media. Additional power equipment will be required.

WILMINGTON, DEL.—Local trolley promoters are reported as projecting line from Wilmington along the Kennett pike, through Greenville, Centreville, Del., and thence to Fairville Village, to Mendenhall Station; from there to Hamorton, and through Parkerville to Lenape, to connect with West Chester Street Ry.

CHARLOTTESVILLE, VA.—Chamber of Commerce has indorsed project of Virginia Railroad & Improvement Co., Col. Cary Ruffin Randolph, Vice-Pres., which proposes, under certain conditions, to locate trolley line from Charlottesville to Point of Rocks, Md., and from Charlottesville to Alberene, and thence to Tidewater. It is said that if local capitalists will subscribe $50,000 to stock the road will be begun at this place.

NORFOLK, VA.—Company has been chartered here to build an electric railway to Elizabeth City, N. C., a distance of 40 miles. It is reported that the Norfolk City Ry. Co., owned by the Williams syndicate, of Richmond, Va., is to build the route.

WASHINGTON, VA.—B. J. Wood, Pres., writes us that right of way for Fredericksburg & Rappahannock Ry. has not been obtained as yet. A good part of the capital been secured. Projected length of road is 60 miles and its route is Culpepper, Woodville and Springville to Washington.

RALEIGH, N. C.—Raleigh Electric Co. is stated to be having plans made for extension of its street car lines.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

GREENSBORO, N. C.—Trustees of Guilford College have made proposition to Greensboro Electric Co. for extension of its line, four miles, to the college.

COLUMBIA, S. C.—Reported that electric line connecting this place with Union, Spartansburg and other up country towns will be constructed as soon as the power plant at Neal Shoals, in Laurens County, is completed. Col. T. C. Duncan, Union, S. C., said to be interested.

SPARTENBURG, S. C.—A five-mile electric road may be built from this place to White Stone Springs, via Glendale. J. T. Harris is interested.

CARTERSVILLE, GA.—Cartersville Traction Co. has been incorporated with $500,000 capital and proposes to build electric railway from Cartersville, through Madison and Clark Counties, to Athens, 30 or 40 miles long. Surveys are said to be completed and work of grading in progress. F. H. Van Wey, Toledo, O., and J. B. Dortch and W. R. Brown are interested.

MEMPHIS, TENN.—Isaac B. Hudson, Gen. Mgr., writes us that surveys have been made for electric line of Shelby County Traction Co., and contracts will be let as soon as right of way is secured. L. S. Proctor and J. A. Omberg are Engrs., and Thos Wellford, Pres.

PITTSBURG, TENN.—See under Electric Light and Power.

CROOKSVILLE, O.—Franchises through this town are stated to be asked by the Zanesville & Southeastern Light & Power Co. and the Perry Electric Light & Power Co. The former company is said to have secured all franchises, save this, for its electric line from Zanesville to Sayre.

DAYTON, O.—Dayton & Kenton Electric Traction Co. is stated to have decided to employ third-rail system on its line between Dayton and Kenton.

DAYTON, O.—We are informed that grading is in progress on both lines of Indiana Traction Co. The line in Ohio is 38 miles long and is under name of Dayton Southwestern. The projected length of road is 50 miles and its route is from Wabash to Warsaw, Ind., and from Dayton to Connersville.

DAYTON, O.—Estimates, plans and specifications for complete electrical equipment contracts for projected Dayton, Union & Huntington Electric Ry., passing through Montpelier, are reported as being got out by Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Line is reported as financed for beginning of construction work soon. F. L. Patrick, Columbus, O., is interested.

EATON, O.—People's Rapid Transit Co., J. Morgan, Pres., Spitzer Bldg., Toledo, O., which proposes to construct electric railway, to run on private right of way, from Toledo to Cincinnati, is said to have secured 80% of its right of way between Toledo and Greenville. New York capitalists are said to have agreed to finance company to extent of $6,000,000, and contracts for construction and equipment of road are reported to be let.

TOLEDO, O.—Much of the right of way is stated to have been secured for electric road of Lake Erie & Southern Traction Co., J. B. Droney, Olean, N. Y., Pres., which proposes to construct electric line from Toledo to Columbus.

COLUMBUS, IND.—Surveys are to be begun for Columbus, Greensburg & Richmond Traction Co.'s line. Maps, profiles, plans, etc., are to be in hands of company within 90 days, when letting of contracts will probably be taken up. B. J. T. Jeup and A. H. Moore, Indianapolis, Ind., may be the engineers in charge.

INDIANAPOLIS, IND.—Directors Columbus, Greensburg & Richmond Traction Co., Chas. N. Wilson, Gen. Mgr., are stated to have decided to increase capital stock of company from $1,000,000 to $2,500,000.

MARION, IND.—Work of constructing line of Kokomo, Marion & Western Traction Co. is being pushed. Contract for power station at Kokomo has been let to Sub-contractor E. L. Danner, and he proposes to have plant completed early in spring. Contract for 50,000 ties has been let to George Bennett, Logansport, Ind., and all of the rails have been bought.

SYRACUSE, IND.—Contract is reported let by Sandusky Portland Cement Co., Syracuse, for the 6-mile electric road from this city, on Lake Wawasee, to New Paris. An appropriation of $150,000 was made for the road. Surveys were finished some time ago.

VERSAILLES, IND.—Municipal Bond & Securities Co., Cincinnati, O., is stated to have financed the Frankfort Traction Co., and that road has resumed operations. It is said line will be extended to this place and equipped as standard gage road, with facilities for handling freight.

VINCENNES, IND.—We are informed that recent $85,000 increase of capital stock of Vincennes Citizens' Electric Ry. Co., B. G. Hudnut, Pres., Terre Haute, Ind., was made for new power house and machinery, new cars, new double track and extending of single track. Wm. Green, Jr., is Supt.

VINCENNES, IND.—Vincennes, West Baden & Louisville Traction Co. (a reorganization of the Southern Indiana Traction Co.) has filed articles of incorporation with county auditor. Company has capital of $1,500,000 and construction of its line from Vincennes to Jasper this summer is reported as assured. Bomus Taylor and Herman Eckert, Jasper, Ind., are interested.

WABASH, IND.—Wabash & Rochester Ry. Co., which proposes 35-mile traction line from this city to Rochester, has had $112,000 in subsidies voted it in aid of the project. Charles Crane, Geneva, O., is Pres., and E. S. Pratt, Scranton, Pa., is Secy.

BELDING, MICH.—Grand Rapids & Belding R. R. Co., which was organized three years ago, is being financed, with intention, it is said, of constructing its electric railway from Grand Rapids to this place. The route was surveyed three years ago and right of way obtained. Projected length is 29 miles and E. H. Christ, Grand Rapids, Mich., is reported to be Ch. Engr.

JACKSON, MICH.—Surveys are to be begun Feb. 2 for proposed line of Toledo & Jackson Electric Ry. Right of way and franchises are being secured. John O. Zabel, Petersburg, Mich., is interested, and F. T. Oakley, The Spitzer, Toledo, O., is probably Engr.

MUSKEGON, MICH.—Proposed electric road from this place to Hart will probably be begun this year. Franchise has been asked in Montague, and that place and Whitehall are the only ones in which permit has not been granted. Right of way is to be secured at once between Muskegon and Grand Rapids. F. A. Nims, Muskegon, is Pres. of West Michigan Interurban Ry. Co., which proposes to build the road.

CARLYLE, ILL.—H. C. Norcross writes us that a committee representing the Carlyle Commercial Club has secured a franchise from Clinton County for an electric railroad from the east to the west line of the county. The intention is to connect with the line now in operation from East St. Louis to Lebanon, which will probably be extended to Trenton, 17 miles west of here, by May. Nothing has been done as to right of way or construction.

CHICAGO, ILL.—Ordinance has been before Council Local Transportation Committee calling for the Graceland Ave. extension of the Northwestern Elevated R. R., to be completed in two years at a cost of $1,500,000.

MT. VERNON, ILL.—Southern Illinois Electric Ry. Co. proposes to build a line at once connecting Mt. Vernon, Salem, Centralia, Central City, Irvington, Richview, Hoyletown, New Minden, Okawville, New Memphis, Mascoutah and Rentchler Station with Belleville, where transfer connection will be made with the East St. Louis Suburban for St. Louis.

BARABOO, WIS.—William J. Bell is stated to be promoting project for building electric road from Portage to Grand Rapids, touching Columbia, Adams, Wood and perhaps Marquette counties.

GREEN BAY, WIS.—We are informed that construction of Fox River Interurban from Green Bay, Wis., to Kankana, 20¼ miles, has progressed as follows:: Graded, 14 miles; track laid, 3½ miles; poles set, 10 miles. Power station is at Green Bay and is half completed. It comprises 1,000-HP. Allis Westinghouse Engine, etc. Knox Construction Co., R. H. Heskett, Res. Engr., Green Bay. G. W. Knox, Knox Engineering Co., Fisher Bldg., Chicago, Ill., has charge of advertising for bids.

MANITOWOC, WIS.—Representatives of Fond du Lac & Manitowoc Interurban are stated to be closing contracts for right of way in this county. Franchises have been granted in all towns through which road passes.

ALLISON, IA.—Town voted Jan. 26 on granting franchise for electric railway. It is likely that right of way will also be secured through Coster and Jefferson Township.

SIOUX CITY, IA.—Sioux City, Homer & Southern Ry. Co. has increased capital stock from $500,000 to $1,000,000, and has ordered line from South Sioux City to Homer completed as soon as possible. Western Electrical Supply Co., H. S. Doyle, Gen. Mgr., St. Louis, Mo., is said to have contract for electrical equipment, and R. A. Talbot, Gen. Mgr., South Sioux City (P. O., Sioux City), is in charge of construction.

COFFEYVILLE, KAN.—Union Traction Co. has been incorporated with $150,000 capital and proposes to construct 50-mile electric road. F. D. Benson, Coffeyville, and J. A. Morgan, Brazil, Ind., are interested.

HUTCHINSON, KAN.—Franchise for electric railway here has been granted to J. J. Burns, La Porte, Ind. Work is to be started at once; seven miles of track, part of which is to be double-tracked, will be laid. It is said that Mr. Burns will purchase local street railroad now operated by horses.

WICHITA, KAN.—Wichita Railroad & Light Co., W. R. Morrison, Supt., according to reports is to begin work early on the proposed Pattie and Cleveland Ave. street car line.

OMAHA, NEB.—Omaha Street Ry. Co., W. A. Smith, Gen. Mgr., is said to have made contracts for material for extending its line from Q St., in South Omaha, to Sarpy County line. The Sherman Ave. line will be reconstructed also, from Clark to Locust St. Work is now under way on proposed $500,000 power house.

GRAND FORKS, N, DAK.—Members of faculty of University of North Dakota are reported interested in project for motor line between city and university, for which franchise is to be asked. The company will have $10,000 capital, and present plan calls for gasoline motor and trailer to run on track made of 30-lb. T-rails.

JOPLIN, MO.—Preliminary surveys have been completed for proposed Joplin, Neosho and Pierce City Interurban electric line. The route is from Sarcoxie, Joplin, Neosho, Granby, Pioneer, Peorciey City and Clarkson and back to Sarcoxie. A spur is to run from Clarkson to Stotts City. Victor Grieb, Carthage, Mo., is Ch. Engr.

KANSAS CITY, MO.—Surveys are stated to have been completed for right of way for McGrew Electric line, which is to be built from Lexington to Kansas City by way of Independence, and construction work is to commence at once. Capt. F. C. Florance, Independence, Mo., is Local Mgr., and Stephen Mitchell, Kansas City, is Ch. Engr. Power house is to be located at Buckner.

GALVESTON, TEX.—reported that John W. Gates has purchased the Gulf & Interstate R. R. and will convert it into an electric line. The road extends from Galveston to Beaumont, Tex., and is 70 miles long.

HOUSTON, TEX.—Contract for grading portion of line of Houston, Liberty & Batson Electric Ry. Co. is stated to be let to J. E. Smith, Houston. Right of way between Houston and Sour Lake is said to have been secured. Ed. Kennedy is interested.

ALBUQUERQUE, N. MEX.—Albuquerque Street Ry. Co. is stated to have transferred its property to Albuquerque Traction Co., and latter company will eventually change old horse car line to electric line.

CHEHALIS, WASH.—Interurban railway between this place and Centralia reported under consideration.

COLFAX, WASH.—I. B. Harris, Colfax, Pres. Whitman Electric Railway & Power Co., writes us that franchises have been granted over streets of Colfax and county roads to Palouse City and Idaho state line. Franchise through Palouse City is pending. Colfax is to be principal place of business and lines will be extended as business demands. Surveyors are on the route now and capital is partly subscribed. Contracts will be considered about May. One mile of the road must be built this year, and it must be completed in five years. Projected length is 29 miles.

SEATTLE, WASH.—Board of public works has accepted bid of Seattle Electric Co. for supplying steel rails necessary to lay about seven miles temporary railway track at $17 per ton. Road will be used to haul necessary machinery to the new light and power plant.

SEATTLE, WASH.—Surveys are under way in Ballard for proposed line of Everett-Seattle Interurban, and right of way will be asked through that city.

SPOKANE, WASH.—Adams County Electric Transit Co. expects to start construction work at the Spokane end of the line in spring. Company has located a water right on the rapids in Columbia River, near the mouth of the Spokane, and is planning to develop 30,000 HP. for the new enterprise. A branch from Davenport to the Columbia will be run.

SPOKANE, WASH.—A. J. Smith, Samuel J. Crutcher and A. H. Gustin, of Pine City, Wash., are reported to be advocating an electric line from Spokane to Colfax to transport grain from the Palouse. Proposed route is from Spokane to Spangle, through Buckeye, Pine City, St. John and Pleasant to Colfax.

TACOMA, WASH.—Surveys are to be made for proposed electric railway to American Lake. Project is reported as backed by eastern capital. E. J. Felt may be interested.

WHATCOM, WASH.—Lynden Electric Co. is stated to have secured $160,000 with which to construct 16-mile electric line from this city to Lynden and new street railway in this city.

BAKER CITY, ORE.—Council has extended franchise granted to C. L. Palmer for an electric road in this city. Franchise was granted a year ago and company was organized, but project fell through. New company has been organized and arrangements made to push work in early spring.

LOS ANGELES, CAL.—Griffith Park Ry. Co., Col. James W. Eddy, Pres., is said to have authorized issue of $75,000 of bonds for building electric line to Griffith's Peak. Broadway Land Co., R. & R. I. Bigsby, Mgrs., 327 Byrne Bldg., are agents for sale of bonds. Pavilion and assembly hall are to be erected at terminal of road.

LOS ANGELES, CAL.—S. C. Marchutz has filed bond for $10,000 for his franchise for a railroad on Pico St.

LOS ANGELES, CAL.—Local papers of Jan. 11 stated that grading would start on the new Pacific Electric Ry. line to Anaheim Landing, the new bay city, in a few days. Road will branch from Long Beach, about 10 miles from this city, and cover in all 26 miles. One long trestle will be needed over a bayou. Contractors were figuring on entire work on Jan. 11 and no awards had been made up to that date. Road will be double-track standard gage. H. E. Huntington, Pres. Market St. Ry. Co., San Francisco, is back of this line.

PETALUMA, CAL.—Stated that contracts for northern section of Petaluma & Sebastopol Electric Ry. was to be let in short time. The road is to be continued to McNears Point, from which place it is intention of company to operate line of steamers to San Francisco.

SAN DIEGO, CAL.—San Diego, Pacific Beach & La Jolla R. R. Co. will, it is said, at once apply for franchise, with intention of extending its lines along C and 6th Sts. to N. C. & O. R. R., and thence to Cuyamaca Road. Either electricity or gasoline motors will be used as motive power.

SAN FRANCISCO, CAL.—Dan Lynch, Archie Morrison and others, who own the Clifton Heights property, one mile from this city, are said to be arranging for capital to build trolley line.

SANTA CRUZ, CAL.—County Commissioners have been asked for franchise for electric road from Mud Flat section to Vega. Request is also made for preliminary survey for proposed extension of Watsonville Transportation Co.'s line, Watsonville, Cal., to make connections.

STOCKTON, CAL.—County Supervisors have granted franchise for electric railway to H. H. Griffith.

TUCSON, ARIZ.—We are informed that Tucson Street Ry. Co. intends to change its present horse car system to electric line, and subscriptions to stock are being received. It is expected to have system in operation by April. Chas. H. Hoff is Ch. Engr. and Gen. Mgr.

RENO, NEV.—Active work on the new electric railroad to East Reno was to begin on Jan. 6. J. Lyons will be foreman of the construction work and F. R. Nicholas, Consult. Engr.

LEWISTON, IDAHO.—Referring to proposed electric line of Lewiston & Southeastern Electric Ry. Co., W. H. Hill, Ch. Engr., Lewiston, writes us that preliminary surveys of line and water power have been completed, and location surveys have been in progress. A large amount of the right of way has been secured. Construction capital, however, has not been raised as yet. Propected length of the road is 100 miles, and its route is Lewiston, Cottonwood, Westake, Denver, Grangeville, Ilo, Dublin and Nez Perces. Judson Spofford, Lewiston, is Pres.

LIGHT, HEAT AND POWER PLANTS.

TURNERS FALLS, MASS.—Local electric company is stated to have petitioned legislature for extension of its charter to enable it to make and sell electricity and for the construction of a rock dam toward Montague City.

WARE, MASS.—Ware Electric Co., which proposes to increase capital to $10,000 for improvements, informs us that all arrangements have been made for new work.

NORTHAMPTON, MASS.—Northampton Gas Light Co. has been authorized to issue $30,000 of new stock.

WEBSTER, MASS.—Webster Electric Co., has been granted permission to increase capital stock by $35,000.

GLASTONBURY, CONN.—Electric power plant at Cotton Hollow, South Glastonbury, discussed.

NIAGARA FALLS, N. Y.—The power plant of the Niagara Falls Hydraulic & Mfg. Co. is reported as damaged to extent of about $10,000 by the falling on the roof of several tons of ice and snow from the Gorge.

CANTON, N. Y.—Canton Electric Light & Power Co., W. R. Remington, Pres., is said to contemplate improvements this year.

ALBANY, N. Y.—A bill has been introduced in the legislature amending charter of the Niagara, Lockport & Ontario Power Co. by transforming it from a water supply company to an electrical supply concern and by giving it sweeping powers over rights of way and sources of water power. The company was chartered in 1894, with a capital of $10,000,000, to bring water from a specified area on Lake Ontario and sell it in the counties of Niagara, Erie and Orleans. Timothy E. Ellsworth, Lockport, N. Y., is interested.

NEW YORK, N, Y.—Plans have been prepared for electric generating station for power and lighting Blackwell's Island Bridge, now under construction, but matter will not be taken up for at least two years. Geo. E. Best is Comr. Bridges.

WADDINGTON, N. Y.—Town votes to sell its municipal electric plant.

BORDENTOWN, N. J.—Camden & Trenton Ry. Co., M. J. Perkins, Riverside, N. J., has invited bids for addition to their power house at this place. Complete line of new equipment—boilers, generators, etc.—will be installed.

JERSEY CITY, N. J.—American Lighting Co., Baltimore, Md., is stated to have been awarded contract for street lighting by oil and gas in this city.

NEW FREEDOM, PA.—A. Reehling, Ch. Burgess, writes us that at election Feb. 16 matter of power plant and water-works will be voted on. The proposition is not meeting with much opposition, and if election results favorably the work will be pushed.

COATESVILLE, PA.—Village electric plant contemplated.

MAUCH CHUNK, PA.—See Street and Electric Railways.

HUMMELSTOWN, PA.—See Street and Electric Railways.

NORTHUMBERLAND, PA. — Northumberland Light, Heat & Power Co. has invited bids for new plant of about 250 HP. at this place.

READING, PA.—We are informed that Mayor has vetoed bill for issue of $200,000 of bonds for municipal electric plant. Another bill will be introduced. F. W. Frankhauser is Chn. Com.

ANNAPOLIS, MD.—Bill has been before legislature to incorporate Octoraro Water & Power Co. Pennsylvania R. R. is reported interested in project.

WASHINGTON, D. C.—Following bids were received by W. A. Jones, Comr. Indian Affairs, Jan. 21, for electric lighting at the Cherokee Indian school: Knoxville Electric Co., Knoxville, Tenn., $4,432; McCay Engineering Co., Baltimore, Md., $4,474, arc lamps instead of incandescents, $4,665; Piedmont Electric Co., Asheville, N. C., $3,017, arc lamps $275 additional.

RICHMOND, VA.—Sub-committee on Finance has been considering recommendation of gas department for gas holder for West End.

WILLIAMSBURG, VA.—Council has decided to purchase lamps and to do its own street lighting. Mayor John L. Mercer is on Committee to select lamps.

MOUNDSVILLE, W. VA.—Moundsville Electrical Co. is stated to have decided to extensively improve its plant if a new plant is not erected, and to that end a bond issue of $20,000 will probably be made.

RICHWOOD, W. VA.—Richwood Light & Power Co. is to be incorporated with $25,000. Richard M. Dyer is interested. Population, 3,000.

SPARTANSBURG, N. C.—Referring to proposed power development on French Broad River, Geo. E. Ladshaw, Hydr. Engr., Spartansburg, writes us that work on first plant has been commenced. It is not certain now what will be done, except that two water powers are to be developed. Ladshaw & Ladshaw, Spartansburg, are Engrs.

CHARLESTON, S. C.—Committee on lights, Alderman R. M. Masters, Chn., will recommend an increase of 60 lights for lighting city.

VALDOSTA, GA.—Consumers Ice & Light Co. has been granted 20-year franchise here; plants for manufacture of gas and ice, representing, it is said, investment of $100,000. J. F. Lewis and Dr. J. C. Wilson are interested.

ATLANTA, GA.—Georgia Railway & Electric Co. has been granted permission to lay conduits for bringing electricity from Bull Sluice plant to city.

CONYERS, GA.—City has issued $10,000 bond for building electric light plant. Alderman M. L. Wood is interested.

ST. AUGUSTINE, FLA.—Private electric plant discussed.

PITTSBURG, TENN.—Franchise for electric light plant, street car line and telephone system in this place and Bridgeport, Ala., has been granted company in which A. M. T. Cunningham, Fairmont, Va., is interested. The two cities are five miles apart, and it is proposed to connect them by street car line, which will be eventually extended to Chattanooga, 25 miles distant. System is to be built at once, according to reports.

HENDERSON, TENN.—Local electric plant has been purchased by a Mr. Dalton, of Huntingdon, Tenn., who will reconstruct it.

CHATTANOOGA, TENN.—Bids are asked by Capt. H. W. French, Q. M., until Feb. 24 for installing acetylene gas plant, etc., at the new military post at Chickamauga Park, Ga. (Advertised in Engr. News.)

WATERTOWN, TENN.—Alex. Young wishes information as to cost of installing electric light plant of a capacity of about 300 lights.

LOUISVILLE, KY.—Louisville Gas Co. will, it is said, take steps soon to begin work on its natural gas pipe line from Meade County field to this city.

PORTSMOUTH, O.—W. F. Clauson, Supt., Portsmouth Gas Co., is stated to have recommended that new gas plant be constructed.

COLUMBUS, O.—Referring to proposed heating plant of Columbus Heating Co., D. Deake, Secy., writes us that company is not doing anything as yet.

XENIA, O.—D. M. Stewart and Charles Darlington are reported interested in formation of new company for electric lighting.

YOUNGSTOWN, O.—Stated that electric light plant is to be installed in Diamond Block, owned by James H. McGraw.

ELKHART, IND.—Elkhart Gas Co., C. D. Roys, Pres., has incorporated with $300,000 capital, and will, it is stated, rebuild its system and plant at a cost of $100,000.

RICHMOND, IND.—We are informed that bonds for municipal electric plant are sold. W. W. Zimmerman is Pres.

TERRE HAUTE, IND.—Plans are said to be well under way for new power house of Terre Haute Electric Co., Gardner F. Wells, Mgr., and specifications for 1,000-HP. boiler equipment are stated to have been sent out for bids.

COLUMBUS, IND.—Contract for new city electric light stated to have been let to General Electric Co., Schenectady, N. Y., for $7,033. An engine will be bought in open market.

NEW HAVEN, IND.—Town Trustees Clark and Schnitker agitating municipal electrical plant.

FORT WAYNE, IND.—County Council has appropriated $2,500 for electric light plants at Poor Farm and Allen County Orphans' Home.

RAPID RIVER, MICH.—Local business men are investigating as to cost of installing private electric plant.

BAY CITY, MICH.—City will vote April 4 on issue of $50,000 of bonds to put municipal electric light and power plant in condition to furnish electricity to private consumers.

WHEATON, ILL.—A franchise for distributing gas for heat and lighting purposes has been granted to the Lagrange Gas Co., Lagrange, Ill. The city authorities put the minimum price for the franchise at $4,000, and the company's bid of $4,200 was accepted. The same company is now supplying Joliet, Aurora, Lagrange, Batavia, St. Charles and Hinsdale, and expects to have 12 miles of mains laid in Wheaton this year. The franchise is for 35 years, and the company is to pay to the city 3% of its annual receipts for the first 20 years and 5% for the remaining 15 years. The price of gas is not to exceed $1.05 per 1,000 cu. ft., with a discount of 5 cents per 1,000 for prompt payment. The franchise provides that the gas shall have an illuminating power not less than 18 c. p., with a 5-ft. burner, and also contain 700 heat units per cu. ft.

WILMETTE, ILL.—North Shore Electric Light Co. has secured franchise here, and is said to already have some of its lights in operation.

CHICAGO, ILL.—Council Committee has recommended for passage ordinance of Phoenix Steam Heating Co., which has been pending for 13 months. Measure extends company's powers so that it may sell electricity as well as heat.

CHICAGO, ILL.—Streets and Alleys Committee has recommended that council pass ordinance giving the Englewood Steam Co. right to lay pipes for distribution of heat and power produced by heat in territory bounded by Sixty-first, Sixty-ninth, State and Halsted Sts.

GRANITE CITY, ILL.—Plans stated to be under way for new power house and car house for Granite City & St. Louis Ry. Co., Venice, Ill., at this place. The machinery in present plant in Venice will be moved to this point, and with additional generators will supply the present system and also the new Alton line with power.

LINCOLN, ILL.—Articles of incorporation for company which proposes to establish plant for furnishing gas and electricity in competition to present company are stated to have been drawn up. Walter J. Lamb may be interested.

EAU CLAIR, WIS.—Private electric light plant discussed by East Side business men.

PORTAGE, WIS.—Chicago, Milwaukee & St. Paul Ry. Co. is stated to be considering putting in here electric light and pumping station of its own.

BLACK RIVER FALLS, WIS.—City voted Jan. 19 on buying the water power owned by John S. Owens Co., Eau Claire, Wis.

SHELL LAKE, WIS.—City has voted to borrow $10,000 from the state to establish and equip an electric light and water plant.

MILWAUKEE, WIS.—City may vote on municipal lighting plant. Mayor David A. Rose and council committee have made a report recommending that the council submit to the voters at the spring election the question of issuing $1,500,000 in bonds.

PORTAGE, WIS.—Stated that Chicago, Milwaukee & St. Paul R. R. may put in an electric light plant and pumping station of its own in this city, owing to the price it is paying for light and water.

SIDNEY, IA.—Electric light franchise considered.

WICHITA, KAN.—Chamber of Commerce has appointed Committee, C. L. Davidson, Member, to confer with owners of gas fields to see what inducement Wichita will have to offer in the way of money to get some of these people to build gas pipe line here immediately.

OMAHA, NEB.—Local reports state that construction of canal of Fremont Power & Canal Co., W. J. C. Kenyon, South Omaha, Neb., is to begin in spring. John F. Kelly Engineering Co., 149 Broadway, New York, N. Y., are Des. Engrs., and in charge of construction. The proposed plant is to have capacity of 15,000 HP. and is to supply Omaha, Lincoln, Council Bluffs, Fremont and Columbus. The entire system is to be in operation within two years and will represent expenditure of about $3,500,000.

RUSHVILLE, NEB.—Electric lighting discussed.

PIERRE, S. DAK.—Bids are asked by W. A. Jones, Comr. Indian Affairs, Washington, D. C., until Feb. 18 for acetylene gas plant at Pierre School, S. Dak.

WATERTOWN, S. DAK.—Watertown Gas Co. has been formed by J. E. Allen and E. C. Goecke and will install gas plant.

CANTON, MO.—Bids are asked by Town Clerk until Feb. 3 for labor and material for installing electric light plant, made up as follows: Two 60 x 16 return flue tubular boilers; 150-HP. engine, bids on both high-speed and Corliss types; feed-water heater and one feed pump; 75-KW. A. C. dynamo with exciter, instruments, etc.; arc lamps, wire, pole line, etc. Geo. W. Sturtevant, 1208 Fisher Bldg., Chicago, Ill., is Consult. Engr.

BALLINGER, TEX.—Ballinger Light & Ice Co. has been incorporated with $10,000 capital. W. A. Norman and R. B. Creary are interested.

AUSTIN, TEX.—City Water and Light Commission is said to be considering proposition for installing turbine engine at power plant. R. E. White is Mayor.

SARATOGA, TEX.—Stated that Sour Lake Electric Light & Power Co., Sour Lake, Tex., will install electric light and power plant here.

HOUSTON, TEX.—Referring to proposed enlargement of Houston Light & Power Co.'s plant, Wm. H. Chapman, Gen. Mgr., writes us that contract has been let to General Electric Co., Schenectady, N. Y., for all equipment.

DEL RIO, TEX.—J. M. Maxcy, Consult. Engr., Houston, Tex., is stated to be preparing plans for electric power plant at San Felipe Springs, near here. It is proposed to generate 375 HP. by flow of water from Springs. G. Bedell Moore, San Antonio, Tex., is interested.

CLEBURNE, TEX.—Cleburne Gas & Electric Light Co. has been organized with $150,000 capital, to manufacture gas and to furnish electric light and power. J. F. Strickland, Waxahachie, Tex., and R. Vickery, Fort Worth, Tex., are interested.

COLORADO SPRINGS, COLO.—According to a statement filed for water rights, the Pikes Peak Hydro-Electric Co. proposes to spend $265,000 upon ditches for conveying water to its generating plant. The ditch will be 20,658 ft. long, and 6,000 ft. of it will consist of a flume 5 ft. wide and 4 ft. deep; work upon ditch is to be started by July.

CRIPPLE CREEK, COLO.—Local electric company is lighting city for 60 days, pending settlement of difficulties between it and city council. Mayor Shockey has suggested that company's franchise be annulled and that city vote on municipal light plant.

GALLUP, N. MEX.—Gallup Electric Light Co. has been incorporated with $50,000 capital. Maynard Gunsul, Albuquerque, N. Mex., and Kenneth K. Scott, Gallup, are interested.

BELLINGHAM, WASH.—C. T. Likins, C. A. Wyatt and George Butters have asked council for franchise for electric light and power plant.

PASCO, WASH.—Water of Snake River at Five-Mile Rapids has been appropriated for power development purposes, and it is likely that claim will also be filed soon for water at Fishhook Rapids.

JUNCTION CITY, ORE.—City votes Jan. 25 on granting electric light franchise to Booth-Kelly Co.

COALINGA, CAL.—Dr. J. J. O'Brien, Los Angeles, Cal., is said to be considering establishing an electric plant here for distribution of electricity for light and power to Lemoore, Armona and also through the Sunset and Kern oil fields. Crude oil would be used for fuel.

GRASS VALLEY, CAL.—California Central Gas & Electric Co. has been granted franchise for gas mains along the county road from Nevada City to Grass Valley.

MODESTO, CAL.—W. O. Thompson, Cy. Clk., writes us that franchise for light, heating and power has been let to Stanislaus Milling & Power Co., who will bring electricity from their plant at Knights Ferry, a distance of 35 miles.

SAN DIEGO, CAL.—D. J. Kelley has filed claim upon 25,000 in. of water in San Luis Rey River, to be used in development of power. It is reported that Mr. Kelley represents Huntington street railway interests of Los Angeles.

OROVILLE, CAL.—John C. Boyle has located 15,000 ins. of water of Middle Fork of the Feather River. It is proposed to build a dam 60 ft. high at the foot of Bald Rock Canyon and take the water by a ditch on the Mooretown Ridge on the line of the Smith survey. A power station will be established on the South Fork just below the Bidwell bar, and power will be taken to San Francisco and other points via Oroville.

FRESNO, CAL.—Consumers' Light & Power Co., will apply to council for franchise in this city. Company proposes to furnish power to the residents on the west side of the track, and it is probable that a water plant will be installed in connection with the power plant. W. R. Mahoney is interested.

LONG BEACH, CAL.—Municipal electric light petitioned for. W. A. Foster is Cy. Engr.

DOUGLAS, ARIZ.—Stated that M. C. Osborn of Western Gas Plant Construction Co., San Francisco, Cal., will superintendent construction of plant to be built here for Douglas Gas & Fuel Co.

DOUGLAS, ARIZ.—Citizen's Electric Light, Ice & Telephone Co. has ben incorporated with $75,000 capital, to acquire electric light plants, power plants, telephone system, water systems, cold storage systems, pipe lines, etc. D. A. Richardson and W. G. McDonald are interested.

SALT LAKE CITY, UTAH.—Utah Light & Ry. Co. Robert S. Campbell, Gen. Mgr., is said to contemplate extension of gas mains and re-equipment of gas station at a cost of about $200,000.

IDAHO FALLS, IDAHO.—Referring to proposed power plant, George Chapin, Pres., Idaho Power & Transportation Co., Ltd., writes us that the proposition contemplates erection of water power plant on Snake River near Idaho Falls, of 3,000 HP., for purpose of generating electric energy for lighting, trolley lines and general commercial purposes. Water power machinery and electrical apparatus requisite for above-named power will be needed. No contracts have as yet been made and bids will not be advertised for before Feb. 20. Mr. Chapin is to be in New York about Jan. 30, and in the meantime communications should be addressed to A. V. Scott, Secy.

EMMET, IDAHO.—J. H. Forbes and C. H. Oliver have entered into agreement with village whereby they agree to put in an electric light plant within nine months. They will put in a steam engine and boiler of 120-HP.

RICHIBUCTO, N. B.—Establishment of electric plant here likely. Richard O'Leary and H. H. James are interested.

SHOWINIGAN FALLS, QUE.—Engineers are reported to be surveying routes for distribution lines, which Shawinigan Falls Water Power Co. contemplates installing for supplying electric power to Sherbrooke, Windsor Mills, Thetford, Richmond and other places in the Eastern Townships.

BOWMANVILLE, ONT.—Reported that Bowmanville Electric Light Co. will build new dam and enlarge their plant in the Spring.

PRESTON, ONT.—Town Council has engaged R. A. Ross, E. E., Montreal, Que., to report on value of existing electric light plant, and cost of installing a new plant.

EUGENIA FALLS, ONT.—Eugenia Falls Water Power & Electric Co. has been organized to develop water power at this place. George F. Madden, Toronto, Ont., and B. F. Reesor, Lindsay, Ont., are interested.

BRIDGES.

BOSTON, MASS.—Jas. F. Jackson, Chn. Bd. R. R. Comrs., Boston, writes us that neither the location nor the character of the proposed bridge between Fall River and Somerset, Mass., has yet been determined upon.

DANVERS, MASS.—R. D. Bates, Chn., Selectmen, writes us that plans are out for bridge on Maple St., over B. & M. R. R. Further information can be obtained from County Commissioners.

MONSON, MASS.—Town may erect new bridges over Quaboag River at Fay's and State Ave.

TIVERTON, R. I.—Representative Wm. I. Frost has introduced resolution in state legislature appropriating $100,000 for the building of a bridge across the Seaconnet River, between Tiverton and Portsmouth.

WILLIMANTIC, CONN.—Consolidated Road (N. Y., N. H. & H. R. R.) will replace the old wooden bridge over the Willimantic River, on the Providence Division, with a new modern steel bridge. Five other new steel bridges are also to be built on this division immediately. It is also expected that Central Vermont R. R. Co. will put in new steel bridge over Willimantic River.

FARMINGTON, CONN.—Chas. G. Bill, First Selectman, Unionville, writes that foundations for new bridge at Farmington are already in. Superstructure will be steel or concrete, with one 134 ft. span between abutments, 20 ft. width, 15 tons capacity.

NORWICH, CONN.—Hearing recently given by Board Public Works on matter of substituting a drawbridge for the present railroad bridge across the east arm of the Yantic River. Hearing requested by Major Powell, U. S. Engr.

BINGHAMTON, N. Y.—Council has again rejected bids for raising Tompkins St. bridge, and has directed City Engineer Baird to have work done by day labor, $2,000 being appropriated for that purpose.

WATERVLIET, N. Y.—A bill has been introduced in legislature authorizing council to raise $10,000 for building bridge at 15th St. and Third Ave. The public improvement commission is directed to prepare plans and make an estimate of the cost of the improvement.

COHOES, N. Y.—Charles H. Van Auken, Cy. Engr., is stated to have completed plans for new bridge over Mohawk River at Ontario St. Plans call for bridge wide enough for double tracks, and est. cost is $20,000.

RIVERHEAD, N. Y., L. I.—Bridge over Peconic River on Peconic Ave. reported in bad condition. Chas. S. Edwards is Comr. Highways.

BUFFALO, N. Y.—Following bids were received by Board Public Works Jan. 20 for constructing superstructure of bridge over Erie Canal at Evans St.: Bracket Bridge Co., Cincinnati, O., $5,948; Buffalo Structural Steel Co., Buffalo, N. Y., $9,718; King Bridge Co., Cleveland, O., $7,100; McClintic-Marshall Construction Co., Pittsburg, Pa., $8,585. For the bridge, with different floor construction, following bids were received; (1) expanded metal floor, (2) Monier floor, (3) Roebling floor: American Bridge Co., New York, (1) $8,626, (2) $8,963, (3) $8,973; The Russell Wheel & Foundry Co., (1) $15,847, (2) $16,013.

BINGHAMTON, N. Y.—D. C. Herrick, Cy. Clk., informs us that the council is undecided as regards the Tompkins St. bridge. S. M. Baird is Cy. Engr.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

SYRACUSE, N. Y.—Frank J. Schnauber, [illegible] Engr., writes that the State Engineer, Albany, will have entire charge of proposed bridge over Oswego Canal [illegible] Willow St., this city.

NEWARK, N. J.—The Concrete-Steel Engineering Co. (Wm. Muesser, C. E.) 21 Park Row, New York, is preparing plans for two concrete-steel bridges [illegible] Branch Brook Park. Bids will be advertised for in [illegible] six weeks by A. Reynolds, Jr., Engr., Essex County Park Commission, Clifton and Seventh Aves., Newark.

PHILADELPHIA, PA.—Plans for partial rebuilding of two spans of Spring Garden bridge are reported [illegible] completed. Temporary repair work is to be begun at once. Peter E. Costello is Dir. Pub. Wks.

ATGLEN, PA.—An inter-county bridge will be erected shortly at this place by Chester and Lancaster counties, to be of steel, one span.

LANCASTER, PA.—County Commissioners are to call for bids in about two months for 1-span steel bridge over Cocalico Creek at Warwick. E. N. Smith, Columbia, Pa., is Engr.

SHARON, PA.—Local reports state that recent flood in Shenango Valley swept away railroad bridge at Stewart Iron Works and bridge at Sharon Water-Works. Two other bridges were washed out at Wampum and East Brook.

DERBY, PA.—Delaware County Commissioners will soon have plans prepared for a new steel bridge 70 ft. long.

WASHINGTON, D. C.—Plans for location of alignments and estimates of quantity for Connecticut Ave. bridge are on file at office Engineering News, 220 Broadway, New York City. Bids will be received until Feb. 16, as stated in our advertising columns.

FAIRMOUNT, W. VA.—Maj. G. A. Zinn, U. S. Engr., will give a hearing at Pittsburg on the matter of change of the B. & O. railroad bridge over Monongahela River one mile below here so as to facilitate navigation under it.

WEST VIRGINIA.—Representative Dayton has introduced a bill for the Buckhannon & Northern R. R. (Wabash) bridge over the Monongahela River at point above the mouth of the Pawpaw Creek, W. Va.

THOMASTON, GA.—County commissioners have given notice that bridge over Tabler Creek at Waymanville is unsafe. M. H. Sandwich is Clk.

NATCHITOCHES, LA.—Bids are asked until March 1 for erection of steel bridge over Old River at Cypress Station; also for erection of steel drawbridge over Cane River at Derry, and for protection work to bridge at Grand Ecore. G. W. Kile, Pres. Police Jury. (See advertising columns).

CHATTANOOGA, TENN.—McCallie Ave. viaduct project will be fostered by Highland Park Business League. No plans prepared as yet.

CHATTANOOGA, TENN.—Chattanooga Electric Ry. Co., J. H. Warner, Pres., is stated to have accepted plans of Pennsylvania Steel Co., Steelton, Pa., for viaduct over railroad track from Oak St. to Olympia Park. Viaduct will be of steel, 225 ft. long, 26 ft. with 22 ft. clearance. Company will secure estimate of cost of the structure, but before building it, will see what action is to be taken in regard to proposed McCallie Ave. viaduct, plans and specifications for which are now being made.

SOMERSET, KY.—L. J. Grimes writes us that Pulaski County Court has let contract to Champion Bridge Co., Wilmington, O., at $26,000, for construction of bridge over Cumberland River at Burnsides.

CLEVELAND, O.—Reports from this city stated that the following bridges were swept away or damaged by recent flood: A dozen small bridges have been swept away on the C. C. & L. R. R. north of Muncie, Ind.; Indiana Union Traction Bridge in Muncie has been swept away; two bridges of the Central Indiana R. R. Co., near Noblesville, Ind., have been wrecked; the P. Y. & A. bridge at Mahiningtown has been washed away; also abutments of the new bridge of the B. & O. at New Castle Junction; C. H. & D. bridge over the Auglaize at Cascade near Continental has been destroyed; three river bridges near Findlay have been washed away; new steel bridge across Bear Creek near this city has been swept away and the viaduct here damaged.

WARREN, O.—Bids are asked until Feb. 19 for constructing substructure of bridge over Mosquito Creek at Niles. Osborne Engineering Co., Cleveland, O., is Des. Engr.; C. C. Clawson, County Audr.

TOLEDO, O.—Bids are asked by County Court until Feb. 3 for building bridge over Five Rivers, above Frank Seits' farm, to have 60-ft. span and two 20-ft. approaches; bids are also asked for building Scott Creek bridge. Ira Wade, County Audr.

CHARDON, O.—County Commissioners are stated to be calling for bids until Feb. 11 for following bridge work: Steel bridges with concrete abutments—30-ft. span, 16-ft. roadway, Smithfield Township; 30-ft. span, 16-ft. roadway, Richland Township; 45-ft. span, 16-ft. roadway, Butler Township; 30-ft. span, 16-ft. roadway, Grant Township; concrete arches, 12-ft. opening, with 16-ft. roadway; 12-ft. opening, 16-ft. roadway; 20-ft. opening, 16-ft. roadway; 9-ft. opening, 16-ft. roadway; 8-ft. roadway. Herman Boozer, County Audr.

COSHOCTON, O.—Reports from here state that the ice gorge in the Walhonding River at Walhonding has swept way the steel railway bridge.

AKRON, O.—S. M. Russell, E. M. W., informs us that the bridges at Brown St. and Martha Ave., this city, have been let to the Mt. Vernon Bridge Co., Mt. Vernon, O., and J. C. Carland, Toledo, respectively. Brown St. bridge will be of steel and Martha Ave. bridge of wood; both with concrete foundations.

NILES, O.—Pennsylvania R. R. Co. will, it is said, place new steel bridges over Mahoning River on Alliance Branch.

MARION, IND.—Bridge of Union Traction Co. over Mississinewa River, between Jonesboro and Gas City, reported carried away by ice jam.

SOUTH BEND, IND.—County Commissioners have employed A. J. Hammond to design new bridge to replace present Jefferson St. structure. Bridge will be 480 ft. long and 72 ft. wide and will have asphalt pavement and cement sidewalks.

BLOOMFIELD, IND.—County Commissioners are reported to be calling for bids until Feb. 2 for following bridge work: Iron bridge, Jackson Township; iron bridge, Taylor Township; stone arch, Washington Township; iron bridge, Stockton Township; stone arches, Richland Township.

RICHMOND, IND.—H. L. Weber, Cy. Engr., writes us that city, with assistance of county and railroad company, contemplate placing a combination bridge across White Water River to accommodate the Columbus, Greensburgh & Richmond Ry. Bridge to be 968 ft. long and 105 ft. high. Profiles are being gotten out for the different firms to submit plans for information.

BOONVILLE, IND.—Bids are asked until March 7 for construction of iron bridge. R. D. O'Moore, County Audr.

ST. JOSEPH, MICH.—Local reports state that Pere Marquette R. R. will build a new bridge over the St. Joseph River at this place before navigation opens in the spring.

CADILLAC, MICH.—Bids are asked until Feb. 1 for construction of bridge over Clam River at Haynes St. W. J. Smith, City Eng. Pub. Wks.

ST. JOSEPH, MICH.—Stated that County Supervisors will replace St. Joseph River bridge at Berrien Springs by iron structure at cost of at least $20,000.

PEKIN, ILL.—Stated that City and Peoria & Pekin Union R. R. Co., F. L. Tompkins, Gen. Supt., Peoria, Ill., will have work started early in spring for bridge over Illinois River.

MILWAUKEE, WIS.—Stated that Board Public Works are to advertise for bids soon for construction of the Bartlett St. bridge over the Northwestern R. R. tracks.

LA CROSSE, WIS.—Contract for constructing steel bridge over East Channel, bids for which were received Jan. 9, is stated to have been let to J. F. McDonough of La Crosse Bridge & Steel Co., for $14,782.

MILWAUKEE, WIS.—Board public works is reported to be calling for bids for highway bridge over Bartlett St. The est. cost is about $25,000 and bridge is to be of steel, with brick roadways and cement sidewalks. It will be 149 ft. long, with two roadways each 20 ft. wide, and two sidewalks each ten ft. wide.

MILWAUKEE, WIS.—Wisconsin & Michigan R. R. is said to be considering plans for remodeling and rebuilding several of their railroad bridges this year. Bridge over Peshtigo River may be replaced by steel structure. B. C. Gowen, Peshtigo, Wis., is Ch. Engr.

OSHKOSH, WIS.—Bridge Committee, Alderman John Voss, Chn., will take up soon matter of new bridge over Fox River at Main St. Bridge would cost about $75,000.

MADISON, WIS.—City Engineer Icke has estimated cost of bridge over Yahara River at Williamson St. at $5,400 for steel structure, and $6,500 for concrete.

CROOKSTON, MINN.—Stated that county commissioners will renew the Jerome Addition bridge in this city at the end of 1904 with a $10,000 structure.

NICOLLET, MINN.—Town boards of Nicollet and Judson are considering erection of bridge.

ST. PAUL, MINN.—New bids are to be called by board of aldermen, according to reports, for removing old Broadway Bridge piers from the river. Lowest bid received at former opening was $12,000.

WICHITA, KAN.—County commissioners are to have surveys made for proposed pile bridge over Arkansas River at Harris St.

TOPEKA, KAN.—Residents of east part of city are asking that 8th St. bridge be repaired, and that it be eventually replaced by new structure.

FREMONT, NEB.—Dodge County, according to reports, will spend $20,000 this year for bridges.

NEBRASKA.—The West Virginia Bridge & Construction Co. of Wheeling, W. Va., has contracts for building the Fulton bridge over the Loup River in Nebraska for $24,500, and the Genoa bridge over the same river for $25,800.

OMAHA, NEB.—Board of Supervisors decided on Jan. 9 to advertise for bids for building all county bridges for the year commencing April 1, at which time the contract with the Canton Bridge Co., Canton, O., will expire. Bids will be received on specifications now on file with county auditor; additional bids on other specifications may be submitted. The exact time for the opening of bids is not determined.

CANTON, S. DAK.—Bids are asked until Jan. 29 for construction of steel and pile bridges, to be built during ensuing year; bidders to furnish plans and specifications. Charles Kundert, County Audr.

YANKTON, SO. DAK.—Robt. J. Gamble, U. S. Senator, Washington, D. C., writes us that he understands that plans for the proposed bridge over the Missouri River at or near Yankton, So. Dak., have been or are being prepared.

GREAT FALLS, MONT.—City Engineer has condemned the wagon and foot bridge across the Missouri River at 1st Ave. North, and recommends extensive repairs at est. cost of about $10,000; bond issue is probable.

FORSYTH, MONT.—Residents of Ashland will petition county commissioners to build bridge over Tongue River at Ashland. It is also reported that Rosebud residents will ask for bridge over Yellowstone at Rosebud. And Forsyth citizens desire commissioners to call an election to vote on $40,000 bond issue for bridge over Yellowstone River at this place.

KANSAS CITY, MO.—The pile foot bridge across the Kaw River between Argentine and Armourdale was wrecked by high water on Jan. 15. Bridge was 600 ft. long, and cost $2,000.

CARTHAGE, MO.—County Court has been petitioned for erection of bridge over Blackberry Creek, north of Medoc.

FULTON, MO.—Bids are asked until Feb. 2 for constructing 200-ft. span queen truss steel wagon bridge, 22 ft. high, on iron tubes, with 16-ft. roadway and two wooden approaches, over Auxvasse Creek, on Mokane and Steedman road. H. C. D. Halley, County Bridge Comr.

ST. LOUIS, MO.—Bill has been before council for temporary wooden bridge, to cost about $16,000, over Wabash Railroad tracks at Union and Lindell Boulevard. Bridge would be constructed by street department.

ST. LOUIS, MO.—The North St. Louis Citizens Association is advertising proposition to cover Bremen Ave. east from Broadway with a steel viaduct. As now planned, the structure will be about 900 ft. long, including approaches, and cost between $250,000 and $300,000. This plan will eliminate grade crossings.

HARRISBURG, ARK.—U. S. Senate has passed bill authorizing this county to construct bridge over the St. Francis River.

LOCKPORT, TEX.—County commissioners have let contract for construction of three bridges over Plum Creek to O. O. Alexander for $4,960.

HOUSTON, TEX.—John W. Maxcy, C. E., Binz Bldg., Houston, informs us that bidders on McKee St. bridge will be expected to furnish their own plans, the city furnishing a cross section and location map only. These will be sent upon application.

SPOKANE, WASH.—City Engineer Gill, Mayor Boyd and Bridge Commissioner Root have discussed with Gen. Funston proposed new bridge connecting city with Fort Wright. The question of putting in a 600-ft. bridge on the level between the two bluffs of the river is being considered. Representative Cushman has a bill of $50,000 pending before the House for building the bridge and Sen. Foster has introduced one in the Senate for $75,000. County Surveyor Snow thinks improvement will cost $150,000.

BARSTOW, WASH.—Contract for bridge over Kettle River at this place let to J. Walsh, Spokane, Wash., for $3,200.

NORTH YAKIMA, WASH.—Moxee bridge across the Yakima River near here is stated to have been condemned.

KALAMA, WASH.—County Surveyor is to prepare plans and specifications for Toutle River bridge on south fork of river. Bridge will at once be rebuilt under his supervision.

PRINEVILLE, ORE.—Stated that County Court will at once let contract for building $4,500 bridge over Crooked River.

FORT COLLINS, COLO.—W. H. Roller & Sons, at $1,600, was only bidder for constructing county bridge over Platte River at North Park.

SANTA FE, N. MEX.—County Commissioners have been petitioned for stone bridge over Santa Fe River on College St.

SAN BERNARDINO, CAL.—County Supervisors are stated to have let contract to Union Iron Works, Los Angeles, Cal., for construction of South E. St. bridge at $6,193 and for bridge at Chino, at $2,103.

LOS ANGELES, CAL.—Bids for the three bridges at Fourth, Macy and Pasadena Aves., having been satisfactory, the council has instructed the city engineer to report plans and specifications for the construction of a steel bridge at Aliso St. in conjunction with the Los Angeles Ry.

STOCKTON, CAL.—Bids are asked until Feb. 2 for erection of steel span bridge over Calaveras River near T. Halls. Eugene D. Graham, County Clk.

MADERA, CAL.—The Superintendent of Construction of the Pacific Construction Co. has examined the Jenny Lind bridge and reported it to be in dangerous condition. Likely that if the Fresno Supervisors will join in the movement, a new bridge will be constructed.

SAN DIEGO, CAL.—J. R. Wade is said to have offered to purchase the B St. bridge bonds, providing he is granted the contract for building the bridges.

PASADENA, CAL.—Heman Dyer, Cy. Clk., writes us the following facts regarding the Linda Visto bridge: City of Pasadena has no specifications for Linda Vista bridge; large part of structure will be in Los Angeles County and supervisors of that county will furnish the plans and specifications and build and control the bridge, the city sharing a portion of the expense. For further information address J. O. Lowe, Clk. Bd. Supervisors, Los Angeles.

SACRAMENTO, CAL.—Supervisor Dillmann appointed to confer with the San Joaquin Supervisors, one-half owners of the Benson Ferry bridge, relative to changing Benson bridge into a draw bridge or erecting new structure, as ordered by Col. Heuer, U. S. Engr. County Surveyor Boyd believes it would not be practicable to put a draw bridge in. He estimates that a new steel bridge could be put in for $30,000.

TOMBSTONE, ARIZ.—Construction of County bridge over San Pedro River at St. David St., Bisbee, reported assured. Est. cost is between $2,500 and $3,000. J. J. Bowen is Chn. County Supervisors.

SYDNEY, N. S.—Plans are stated to be in preparation for proposed bridge over Strait of Canso. Bridge will be of cantilever type, of 4,370 ft. total length, and main span will be 150 ft. above water. This span will be 1,800 ft. long and will rest on two abutments in the shape of steel cylinders, 40 ft. in daimeter, filled with concrete. It is stated that 35,000 tons of steel will be required to construct the bridge, and the est. cost is $5,000,000. Waddell & Herrick, Kansas City, Mo., are Engrs., and the Strait of Canso Bridge Co. will erect a new structure. A. C. Ross, Sydney, is interested.

BUILDINGS.

PORTLAND, ME.—It is suggested that county court house be located at Brighton and Stevens Aves.

ATTLEBORO, MASS.—Representative Henry W. Brown, of Seekonk, Mass., will introduce bill in legislature to authorize erection and make appropriation for court house.

LEXINGTON, MASS.—F. A. Macdonald, Secy. School Bd., writes us that no action will be taken in building schools until annual meeting in March.

TURNERS FALLS, MASS.—Plans for high school accepted. E. C. & G. C. Gardner, Archs., of this city. Building will cost $42,000, and furnishings and heat $8,000 more.

MARLBORO, MASS.—Council approves $75,000 city hall building project.

WOBURN, MASS.—George I. Clapp, Supt. Schools, writes us that matter of new high school building is in hands of Board Public Works.

MARLBORO, MASS.—Council votes to rebuild city hall on original site. Charles F. McCarthy, Pres. Council.

FALL RIVER, MASS.—$108,500 appropriation asked for public buildings; Superintendent Ryley. $279,095 asked for schools; Superintendent Bates.

SALEM, MASS.—Essex county commissioners will ask legislature for appropriation for new court house.

NEW BEDFORD, MASS.—Plans being considered to erect armory at cost of $15,000. Capt. Gibbs, Battery, is interested.

ATTLEBORO, MASS.—Fred B. Byram, Representative, asks House for $50,000 appropriation for county building.

DANBURY, CONN.—We are informed that plans and specification are now open for inspection in the office of Chas. D. Hine, Secy. of State Board of Education, Hartford, Conn., for a State Normal School at Danbury. An attempt will be made to have the building completed in time to open the school next fall.

NEW BRITAIN, CONN.—Wm. H. Cadwell, Arch., writes us that town has voted to secure plans for erection of men's ward at Almshouse. Will be 60 x 75-ft. building, two stories, fireproof, brick, concrete, stone and iron. Will cost $25,000. Indirect gravity system of heating. Question of bids will be considered at annual meeting in March.

ROCKVILLE, CT.—Will of George Sykes, just probated, provides $100,000 for establishment and maintenance of manual training school. David A. Sykes is one of trustees.

SO. NORWICH, CONN.—New England Engineering Co. will install electric wiring in house and grounds of William Zieglers, Great Island.

NEW YORK, N. Y.—Albert E. Davis, John Heintz and other Bronx residents have laid matter of proposed $500,000 borough court house before Mayor McClellan.

NEW CANAAN, CONN.—Benedict Fischer, a New York banker, is having residence, water tower, stables, bowling alleys, etc., erected on his estate. Joseph Wolfe, Arch. F. S. Odell, C. E., is making surveys.

RENSSELAER, N. Y.—Thomas B. Kimber, Jr., Mayor, advocates city hall.

NEW YORK, N. Y.—Bids asked until Feb. 1 by Department of Education, 59th St. and Park Ave., for installing heating apparatus in Manual Training High School, Seventh Ave., Brooklyn. Also at that date for general construction and plumbing and draining of School No. 64, Ninth St. C. B. J. Snyder, Supt. Schools.——Bids asked until Feb. 5 for building stable No. 1 for Bureau Street Cleaning, Swan St., near St. Paul's Ave.; also for plumbing, structural work, etc. Also for building stable No. 2, Columbia St., near Castleton, West New Brighton. George Cromwell, Pres., Richmond Borough.

ALBANY, N. Y.—Bids received for bath house in South End by Board Contract and Supply; Robert Shafer, $49,232; Maurice Mead, $51,000; Morris Kantrowitz, $51,951, were three lowest bidders. Estimates by Board called for $45,000; matter under consideration.

NEW YORK, N. Y.—546 and 548 Broadway damaged by fire on Jan. 24. Oother buildings damaged to extent of $100,000.

NEW YORK, N. Y.—Albert W. Westover, Keith Bldg., Philadelphia, is said to be preparing plans for Oscar Hammerstein for theater to be built at 254-258 West 42d St. ——Said that A. J. Cassatt, Pres. Pennsylvania R. R., will ask for $100,000,000 appropriation from Board of Directors for construction improvements, $10,000,000 of which will be expended upon terminal this year.

NEW YORK, N. Y.—Representative Ire E. Rider has introduced bill appropriating $2,000,000 for purchase of site for Post Office offered by Pennsylvania Railroad. To be on Eighth Ave., between 31st and 33d Sts. To cost $5,000,000. Bill also introduced appropriating $1,000,000 for purchase of site for a branch Post Office offered by the New York Central Railway Co. at its new terminal. Cost of this building is limited to $2,000,000. Postmaster-General Payne recommends legislation.

TROY, N. Y.—Board Supervisors will consider plans for new jail.

SYRACUSE, N. Y.—James R. Day, Chancellor, Syracuse University, recommends, in annual report, that four buildings be built on campus; a Y. M. C. A. building, halls of music and natural history and chemical laboratory.

BROOKLYN, N. Y.—Parfitt Bros., Archs., 26 Court St., are preparing plans for $2,000,000 hotel, to be built upon Academy of Music site. Another hotel may be built near Long Island Railroad Station, to cost $1,250,000.

NIAGARA FALLS, N. Y.—Treasury Department, Washington, D. C., announces selection of $24,000 site for new post office.

ITHACA, N. Y.—$50,000 additional appropriation asked by Congressman Dwight for federal building. $110,000 is total asked for.

OSSINING, N. Y.—Board Supervisors will have plans drawn for new $500,000 federal building.

NEW YORK, N. Y.—La Veloce Navigazione Italiano steamship building on pier No. 64, North River, was damaged by fire on Tuesday. Loss, estimated at between $15,000 and $35,000.

FLUSHING, N. Y.—Bill introduced in Assembly asking $75,000 appropriation for State armory.

NEW YORK, N. Y.—The George W. Jump Co. and the F. M. Hausling Co. have been restrained by a temporary injunction from continuing the work of demolishing the buildings in the blocks bounded by 32d and 33d Sts. and Seventh and Ninth Aves., the site of the Pennsylvania R. R. terminal, upon application of eight other contractors, who allege that they are entitled to share in the profits of that work, according to an agreement made before the bids were submitted.

NEW YORK, N. Y.—Mayor McClellan has been petitioned to approve erection of borough court house.——Board of Estimate has authorized the issuance of $750,000 corporate stock for new police headquarters at Centre and Grand Sts., $88,000 for new police station on Lawrence Ave., Brooklyn; $415,000 for engine, etc., on Duane St.; $16,000 for new quarters for 36th Precinct Station House in Bronx; $15,000 for 41st Precinct House on Mosholu Parkway; $63,000 for buildings on Blackwell's Island.

TRENTON, N. J.—Senator Hutchinson, of Mercer Co., will introduce bill in legislature asking $350,000 appropriation for building new cell wing to state prison. Dr. Samuel F. Stanger and L. E. Watson, of Bd. Prison Inspectors, are preparing resolution.

JERSEY CITY, N. J.—Row of unfinished flat houses on Central Ave. was destroyed by fire last week. Loss estimated at $40,000. Dr. Otto H. Albernesius, owner.

CAMDEN, N. J.—County Collector of Camden County, will receive bids until Jan. 28 for $700,000 4% 40-year court house bonds.

PRINCETON, N. J.—The College Club, Princeton University, will erect a $95,000 building. L. H. Conklin, Newark, Pres.

CAPE MAY, N. J.—Doyle & Doak, 1509 Sansom St., Philadelphia, have posted plans for sub-bids for Cape May Real Estate Co. hotel, five stories, fireproof, 175 x 315 ft. Electric elevators, electric light, steam and power plants.

EAST ORANGE, N. J.—Paul J. Piatti (Steam Engr.) and James Robert Moore (Electric Engr), 156 Fifth Ave., write us that Ernest Greene, Arch., 5 Beekman St., N. Y., has drawn plans for two-story addition to Women's Club. Low-pressure steam heating apparatus, combination direct and indirect cast-iron boilers, light wiring, street service, etc., will be required.

ATLANTIC CITY, N. J.—James Knox Taylor, Super. Arch., Washington, D. C., asks bids until Feb. 26 for erecting post office. Seymour & Paul A. Davis, III., of Philadelphia, Archs. Two story, brick and stone, 80 x 120 ft. Cost, $90,000.

CAMDEN, N. J.—Bids asked by M. F. Ivins, Collector, Camden Co., until Jan. 28 for purchase of $700,000 4% court house building bonds.

POTTSVILLE, PA.—C. F. Mould, Arch., writes us Schuylkill Co. court house alterations, including telephone system, elevator, etc., are not yet ready for proposals.

HANOVER, PA.—Doyle & Doak, 1509 Sansom St., Philadelphia, awarded contract for State Homeopathic Insane Asylum administration building, to cost $285,000. Brick and steel, fireproof, three stories. P. H. Johnson, Arch., Land Title Bldg., Philadelphia, will prepare plans for group of buildings. Total cost, $1,000,000.

READING, PA.—Geo. W. Beard & Co., 529 Court St., awarded contract for Boys' High School at Washington and Eighth Sts. Fireproof, brick and steel, three stories, 205 x 100 ft.; cost, $226,000.

PITTSBURG, PA.—Addition to county jail will cost $250,000. Architects probably will compete for planning same.

PITTSBURG, PA.—H. F. Rowley, Clk. Co. Comn., writes us that nothing has been done regarding Allegheny County jail improvements.

SOMERSET, PA.—E. H. Horner, Clk. Co. Comn., writes us that G. C. Fulton, Arch., is preparing plans for $200,000 court house.

NORRISTOWN, PA.—Bids for erecting public building will not be called for until summer.

YORK, PA.—Jacob Seacrist's Sons have been awarded contract for city hall, at $6,000. Hamme & Leber, Archs. Three stories, 34 x 51 ft., pressed brick and brownstone. Edison Electric Light Co. will heat building.

PHILADELPHIA, PA.—New $2,500,000 Custom House probably will be located at Second and Chestnut Sts. Building will be about 300 x 300 ft. C. Wesley Thomas, Collector of the Port.——Doyle & Doak, 1509 Sansom St., will erect additions to Hahnemann Hospital, consisting of a Maternity Home, Nurses' Home and power-house. To cost $350,000.

EMBREEVILLE, PA.—E. F. Bertolett, Arch., 723 Heed Bldg., Philadelphia, is preparing plans for nurses home. Two stories, fireproof, 30 x 85 feet.

NAOMIPINES, PA.—Nicholson & Keisker, 28 South 16th St., Philadelphia, will prepare plans for rebuilding Chautauqua Schools. Will cost $1,000,000.

READING, PA.—Henry L. Reinhold, 1004 Chestnut St., Philadelphia, is preparing plans for fireproof hotel. Brick, stone and steel, nine stories, electric elevators, steam heating and power plants.

WILLIAMSPORT, PA.—Congressman Elias Deemer has introduced bill asking for $50,000 appropriation for public building.

PHILADELPHIA, PA.—Price and McLanahan, Archs., 1624 Walnut St., are preparing plans for stone building at 1424-26 Chestnut St., for A. H. Reed. Brick, stone and steel, fireproof, 50 x 200 ft., steam heating and power plants.——Henry G. Dagit, 435 Chestnut St., will invite bids soon for church to be erected at 24th and Lehigh Aves. for St. Columbia R. C. Church. Stone, one story; cost, $300,000.——St. Paul Reformed Episcopal Church will have new edifice built at Broad and Venango Sts. Stone, one story; cost, $150,000. Rev. F. E. Dager.——Milligan & Webber, Archs., 520 Walnut St., ask for bids for building flat house at Seventh Ave. and Christian St. Brick and stone, four stories, 30 x 90 ft.

PHILADELPHIA, PA.—Philadelphia and Reading R. R. ask for bids until Jan. 28 for express office at 11th and Hunter Sts. Brick and steel, two stories, 40 x 100 ft.

BALTIMORE, MD.—W. H. Hodges, Arch., 301 North Charles St., asks bids for brick, stone and steel office building; fireproof, eight stories, steam heating and ventilating system, power plants and electric elevators will be installed.

BALTIMORE, MD.—Bids are being asked by Wyatt & Nolting, 4 E. Lexington St., for St. Michael's and All Angels' Protestant Episcopal Chapel.

FT. HOWARD, MD.—A. M. Carroll, 719 Lenox St., Baltimore, awarded contract for two non-commissioned officers' quarters. Brick, 2½ stories.

CALVERTON, MD.—Bids have been received for $30,000 laundry for House of Good Shepherd.

WASHINGTON, D. C.—James Knox Taylor, Super. Arch., has submitted to Congress plans for Hall of Records, to be located upon entire square bounded by E and F, 18th and 19th Sts., N. W.; fireproof, five stories, with 12 tiers of steel stacks. Will cost $2,000,000, exclusive of land price.

WASHINGTON, D. C.—B. Stanley Simmons, Arch., 523 Ninth St., N. W., has prepared plans for G. H. Peckford for 50 x 156 ft. granite and brick building on 14th St., N. W., near Rigg's Place, for National Automobile Co.——Bids have been received by Elliott Woods, Supt, Capitol, for removing buildings from site of proposed House of Representatives' office building.

WASHINGTON, D. C.—Y. M. C. A. building will be erected at cost of $300,000. John D. Rockefeller will give $50,000 upon condition that $250,000 is raised; $209,000 now raised.

WASHINGTON, D. C.—Bureau of Supplies and Accounts, Navy Dept., has received bids for construction of naval hospital. General Supply and Construction Co., 10 Bridge St., N. Y., $141,900; Snare & Triest Construction Co., 39 Courtland St., N. Y., $172,000. Building to be erected on site of old naval observatory.

WASHINGTON, D. C.—Specifications for heating apparatus and plumbing fixtures for Engineer School and Army War College, for which bids are asked until Feb. 18, on file in office of Engineering News, N. Y.

WASHINGTON, D. C.—Bids were received on Jan. 16 on Item 1—for steel work for Building No. 116, Navy Yard: Barber & Ross, Washington, $20,590; American Structural Steel Co., 336 4th Ave., Pittsburg, Pa., $18,977; Scofield Co., 906 Pennsylvania Bldg., Philadelphia, Pa., $23,650; Snare & Triest Co., 39 Cortlandt St., New York., $19,430; Lauer & Harper Co., Westport (Baltimore Co.), Md., $19,968; American Bridge Co., 606 Continental Trust Bldg., Baltimore, $19,394; Belmont Iron Works, 22 Washington Ave., Philadelphia, $19,747; Penn Bridge Co., Beaver Falls, Pa., $21,333; Brown-Ketcham Iron Works, 2549 W. Michigan St., Indianapolis, Ind., $18,300; Milliken Bros., 11 Broadway, New York, $20,415; Virginia Bridge & Iron Co., Roanoke, Va., $20,500.

BIG STONE GAP, VA.—Campbell Stemp, of Ninth Virginia district, has introduced bill in Congress for $150,000 appropriation for federal building.

RICHMOND, VA.—George Wayne Anderson, Senator, has re-introduced bill in the Senate asking for $250,000 appropriation for enlarging State Capitol.

RICHMOND, VA.—Wright, Blair & Co., 1725 H St., N. W., Washington, D. C., ask for bids until Feb. 2 for hotel for W. H. Zimmerman. Brick, stone and steel, fireproof, eight stories, 128 x 136 ft.; to cost $150,000. Electric elevators, steam heating and ventilating and power plant.

WHEELING, W. VA.—Fire has wiped out portion of business district. Loss over $750,000.

WHEELING, W. VA.—Reported that Col. Henry Schmuelbach will erect $200,000, seven-story office building. Olesey & Faris, Masonic Bldg., Archs.

CHARLESTOWN, W. VA.—Thomas C. Kennedy, 113 North Charles St., Baltimore, invites bids for hotel. Brick and stone, four stories.

GREENSBORO, N. C.—C. D. Benbow will erect a block of stores. To cost, $25,000.

SPARTANBURG, S. C.—Site obtained for proposed Carnegie library on Magnolia St. S. P. Cleveland is interested.

COLUMBIA, S. C.—We are informed that bill has been introduced in legislature to empower Railway Commissioners to order railroads to build Union Stations in cities of 5,000 population or more.

AIKEN, S. C.—$200,000 tourist hotel probably will be built at Howland Heights. Promoters are H. E. Gyles, of Aiken, and C. B. Willis, of Graniteville.

GAINESVILLE, GA.—Contract awarded Pauley Jail Building Co. for $20,000 jail for Hall county.

GEORGIA.—Senator Alexander Clay has introduced bills for erection of public buildings in Albany, Americus and Thomasville.

SAVANNAH, GA.—Bids for erecting new city hall were rejected. New bids asked.

MACON, GA.—New theatre with seating capacity of 2,200 and to cost about $50,000, will be erected here in April by Julius DeGive, of Atlanta.

ATLANTA, GA.—Dabney Scoville, proprietor Marion Hotel, will erect five-story fireproof brick and steel hotel, to cost $75,000 or $100,000.

MACON, GA.—P. D. Pollack, Pres. University, writes us that nothing definite has been accomplished yet toward law building at Mercer University.

SAVANNAH, GA.—All bids for erecting city hall were rejected. New bids probably will be called for on Feb. 1 or 2.

BIRMINGHAM, ALA.—New government building being considered. Jos. O. Thompson, Inspector of Internal Revenue, is in charge of plans.

MERIDIAN, MISS.—Railroad Commission approves plans for $75,000 union station. Will be 400 x 90 ft., Spanish mission style. Will be built by Mobile and Ohio, Southern Railway, Alabama Great Southern, Alabama and Vicksburg, and New Orleans and Northeastern roads.

YAZOO, MISS.—$30,000 school building to be erected. Robt. Torrey, Supt. Schools.

NATCHEZ, MISS.—Department of Justice, Washington, D. C., has approved Congressman V. A. McLain's petition for $75,000 public building here.

NEW ORLEANS, LA.—L. P. Hazen & Co., Cincinnati, O., lowest bidder for steam engineering shop at Navy Yard: $70,838; brick and steel, fireproof; one story, 95 x 140 ft.

RUTLEDGE, TENN.—O. D. Wheeler, Charlotte, N. C., Arch. for Grainger Co. court house, has had plans accepted.

MEMPHIS, TENN.—D. H. Burnham & Co., Archs. Rookery Bldg., Chicago, have been commissioned to prepare plans for Memphis Trust Co. building.

COLUMBIA, TENN.—J. E. R. Carpenter, Arch., 571 5th Ave., New York, has completed plans for Maury county court house; to cost $100,000

LA FOLLETTE, TENN.—Frank P. Milburn, Arch., Columbia, S. C., writes that his plans for court house have been recommended to court by committee; probably will be accepted after injunction now pending is removed.

FRANKFORT, KY.—New State Capitol probably will be built, as $1,000,000 appropriation is unanimously favored by committee.

FRANKFORT, KY.—Representative Hughes introduced bill in house asking appropriation of $133,000 for erection of additional buildings at Lexington lunatic asylum.——Representative Johnson introduced bill asking for $1,000,000 appropriation for erection of new capitol for state. Senator Gillenwaters introduced same bill in senate.

LEXINGTON, KY.—O. D. Wilson, Secy. Lexington Auditorium Co., writes us that proposed auditorium will not be erected at present.

LANCASTER, O.—John Rouzer Co., Dayton, awarded contract for school building for Boys' Industrial School. at $30,160.

INDIANAPOLIS, IND.—Board School Commissioners have authorized $150,000 bond issue for high school annex.

FRANKLIN, IND.—Harris & Shopbell, Archs., Evansville, have prepared plans for $25,000 high school building. Bids to be asked soon.

LEBANON, IND.—Theodore Stanly and others have ordered plans for 60 x 100 ft., three-story business block. Bids will be called for upon acceptance of same.

BLUFFTON, IND.—Bliss Hotel Co. has incorporated with capital stock of $55,000. Will erect hotel. M. Long, Pres.

HOUGHTON, MICH.—E. O. Kuenzli writes us that plans are not completed for proposed gymnasium.

SAULT STE. MARIE, MICH.—County Board will meet in February and pass resolutions to submit matter to people of making additions to court house at spring election. H. L. Parsille, Co. Clk., is interested.

GRAND RAPIDS, MICH.—C. E. Bondy, proprietor Cody Hotel, writes us that no improvements will be made this year.

LA SALLE, ILL.—Committee recommends council to order that hereafter all public buildings must be constructed of brick, stone and fireproof material.

CHICAGO, ILL.—Reported that Martin A. Ryerson, 1208 Marquette Bldg., has been awarded general contract for mercantile building to be erected for Wells Bros. Co. at Adams St. and Chicago River. Holabird & Roche, 1618 Monadnock Block, Archs. Will cost $300,000; ten stories, 72 x 150 ft., brick; two electric passenger elevators, two hydraulic freight elevators, steam heat, etc.——Bids received and contracts awarded for additions to Kinzie School, Ohio St. and La Salle Ave.: Hansin Bros., Dearborn St., mason and carpenter work, $9,600; P. Nacey Co., 315-317 Wabash Ave., plumbing and gas fitting, $2,404; W. A. Pope, 79 Lake St., heating, $3,689; $20,000.——Illinois Central will build $50,000 station at Randolph St.

URBANA, ILL.—County will build jail. T. A. Burt, Co. Clk.

MILWAUKEE, WIS.—Wm. H. Devos, Collector Customs, will ask $25,000 appropriation for federal building improvements.

KENOSHA, WIS.—Board of Education has adopted plans for $30,000 Durkee school building.

WATERLOO, IA.—$72,500 has been appropriated at Washington, D. C., for federal building.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

IOWA CITY, IA.—Butler Bros., of Minneapolis, have secured contract for federal building at $42,500.

CEDAR RAPIDS, IA.—Bids asked until Feb. 1 for erecting Carnegie Library. Pressed brick, stone, marble, granite and terra cotta. Will cost $70,000. Josselyn & Taylor Co., Archs.

PARK RAPIDS, MINN.—Bids asked until Feb. 8 for building sheriff's residence and jail.

SALINA, KAN.—Bids asked until Feb. 1 by Board Education for erecting school house.

BISMARCK, N. DAK.—Butler Bros., St. Paul, Minn., were the lowest bidders for construction work on State capitol addition, at $68,000. The bids on the elevator were: Eaton & Prince, Chicago, $7,375; Otis Elevator Company, Chicago, $6,967.

MANDAN, N. DAK.—County Commissioners will advertise for erection of $5,000 court house.

BISMARK, N. D.—State Capitol Commission awarded north wing addition contract to Butler Bros., St. Paul, Minn., at $68,000. Otis Elevator Co. awarded elevator contract at $6,957.

SHERIDAN, WYO.—C. E. Worthington, County Surveyor, writes us that bonds not voted for yet for $100,000 court house. Will be of pressed brick when erected.

GREAT FALLS, MONT.—Bids asked until Feb. 20 for erecting new North Side school building.

ST. JOSEPH, MO.—Auditorium building plans probably will be carried out within next month. Rufus H. Todd is interested.

ST. LOUIS, MO.—Belcher Water Bath Co. has arranged to build $300,000 bath house at Front St. and Lucas Ave. E. E. Oehler, Secy.

KANSAS CITY, MO.—Council will offer for sale $250,000 hospital bonds.

KANSAS CITY, MO.—Contract for extension to federal building has been let to John C. Robinson, of Chicago, at $311,911; work to be completed by Dec. 1, 1905.

ST. LOUIS, MO.—Richard Bartholdt, Representative, has asked House for appropriation for completing post office building near Union Station.

HOUSTON, TEX.—Attorney-General at Austin approves $12,000 Houston Heights school house bonds.——Congressman John Pinckney has introduced bill for erection of public building, cost to be $850,000.

SOUR LAKE, TEX.—Reported that entire business section of town was destroyed by fire last week. Loss, $300,000.

TEXARKANA, TEX.—Representative Morris Sheppard has introduced bill in House asking for $200,000 appropriation for new federal building.

FORT SAM HOUSTON, TEX.—$40,000 will be expended by government in constructing amusement hall here. Quartermaster will give information.

LAS VEGAS, N. MEX—Bids asked by Secretary of New Mexico Insane Asylum until Feb. 15 for erection of 168-ft. annex. To be of brick, stone and concrete; stone trimmings, maple floors, plumbing, electric lights and indirect steam heating and ventilating system. Plans at office of Holt and Holt, Archs. Wm. E. Gortner, Secy.

LOS ANGELES, CAL.—Beach Land Co., Playa del Rey, will build $40,000 pavilion.

HOLLYWOOD, CAL.—Bishop Conaty, of Monterey and Los Angeles, has purchased for Sisters of Immaculate Heart tract of 14 acres on Western Ave., as site for new academy and novitiate of this sisterhood.

LOS ANGELES, CAL.—Collins Hotel will be built at 248-252 S. Olive St. A. L. Haley, Arch., will have 11 stories on Clay St. side and five on Olive St.; solid brick up to fifth floor; above that plaster will be used on expanded metal lath, covered with cement; will contain 200 rooms. To cost $147,000. Three passenger elevators will be installed and steam heat will be used. Syndicate comprises Col. J. V. Eddy, Niles Pease, A. L. Haley. W. S. Collins, Builder.——W. S. Collins, Pres. Newport Beach Co., and Geo. Hart will erect $100,000 hotel on S. Figuerea St. A. L. Haley, Arch.

SAN FRANCISCO, CAL.—Will of Charles F. Does, the millionaire lumberman, provides for a $700,000 library for University of California.

SANTA ROSA, CAL.—P. C. Rossi, of San Francisco, Pres. Italian-Swiss Colony at Asti, is having plans prepared for a castle home on Russian River.

FRUITVALE, CAL.—Franciscan Monastery will be built here. Father Dennis Schuyler.

SAN DIEGO, CAL.—Representative M. J. Daniels has introduced bill in House for appropriation of $250,000 for federal building.

PASADENA, CAL.—Stone & Smith's plans for school building accepted. Will cost $35,000. Brick, twelve rooms.

SAN DIEGO, CAL.—Horton hotel is to be demolished in March. New hotel will be erected. U. S. Grant, Jr., San Diego, Cal., will be the builder. To cost $750,000. Furnishings, $250,000; total of about $1,000,000. Manager Robinson, of Hotel Robinson, will be manager.

SAN FRANCISCO, CAL.—Eames & Young, Archs., St. Louis, Mo., appointed architects for new custom house. Will be fireproof, stone building, five stories high. Will cost $1,500,000.

OCEAN PARK, CAL.—Proposed Ocean Park bath house to cost $150,000. The promoters will incorporate as the Ocean Park Bath House & Amusement Co. with $300,000 capital stock.

SAN FRANCISCO, CAL.—Herbert E. Law will erect hotel on Market St., between Examiner Bldg. and Palace Hotel. Architects are now figuring on plans. To cost $300,000.——Senator George Perkins has favorably reported his bill appropriating $200,000 for building an immigrant station at this city. Bill also introduced appropriating $50,000 for beautifying the Presidio.

WATSONVILLE, CAL.—Reported that Port Rogers, near Watsonville, is to be made a resort. A company with $100,000 capital is to be organized. Bathhouse and hotel are to be built.

ALAMEDA, CAL.—Representative Metcalf has introduced bills appropriating $100,000 for public building; same amount for a building at Vallejo.

NORTH BAY, ONT.—Bids asked until Feb. 15 for erecting high school building. Thomson & Angus, Archs.

WATER SUPPLY AND IRRIGATION.

PORTLAND, ME.—We are informed that following bids were received here Jan. 22 for constructing pumping and storage plant at Fort McKinley, Me.; Capt. A. W. Yates, C. Q. M.: (1) boiler and pump house, (2) shelter for duplicate well pump, each, (3) reservoir, (4) pumping machinery, (5) water mains: H. A. Slakin, Boston, Mass., (1)

$12,000, (2) $1,450, (3) $3,500; Chas. N. Taylor, Boston, (1) $10,000, (2) $700, (3) $2,200, (4) $10,500, (5) $2,500; J. W. Burrows, Portland, Me., (1) $8,450, (2) $975, (3) $2,250, (4) $2,250; A. H. Moulton, Portland, Me., (4) $1,094; P. Maloy & Son, Salem, Me., (3) $2,900; Jarvis Engineering Co., Boston, Mass., (1) $13,000, (3) $2,000, (4) $13,300; R. D. Shanahan, Portland, Me., (3) $2,000, (5) $2,000.

ROCHESTER, N. H.—Outlook pipe has been extended 250 ft. in Round Pond, and if this fails to give satisfactory water supply a filter may be considered.

WESTFIELD, MASS.—We are informed that no action has been taken toward water pipe extension to Eden Park. Nothing will be done probably towards pipe extension until April. Oren E. Parks, Town Engr.

WORCESTER, MASS.—Contract for supplying city with 20,000 ft. 1-in. and 5,000 ft. 1¼-in. steel pipe has been let to Callahan Supply Co.

NORTH ANDOVER, MASS.—Town has asked legislative leave to borrow $30,000 for extending water systems.

LAWRENCE, MASS.—Plans for new city filter have been completed, and it is said that work will probably be started this year. The cost will be about $60,000.

BROCKTON, MASS.—Aldermen have sanctioned issue of $150,000 of water bonds, this being done, it is said, in order to give the Water Commissioners authority to make contracts during the winter, in case the market should show any signs of weakening on pipe and building materials. Edward H. Keith is Mayor.

BROOKLINE, MASS.—Water Board will ask at next town meeting that it be authorized to lay a 24-in. pipe from the corner of Boylston St. and Fisher Ave. to Beacon St., opposite Park, at a cost of $40,000.

AUBURN, N. Y.—Reported that water mains will be extended and pumping station conditions improved the coming spring and summer.

SAYVILLE, N. Y.—Formation of independent water company in connection with Sayville Electric Light Co. discussed.

NEWARK VALLEY, N. Y.—Town votes Jan. 27 on installing $27,000 water system.

AUBURN, N. Y.—Bids are to be called shortly, it is said, for 10,000,000-gallon pump and engine, for upper pumping house.

NEW YORK, N. Y.—Bids will be called soon by Department Water Supply, Gas & Electricity, John T. Oakley, Comr., 21 Park Row, for furnishing and installing two 15,000,000-gallon pumping engines in West 98th St., pumping station. N. S. Hill is Ch. Engr.

SYRACUSE, N. Y.—Reported that Howard Soule, who was Consult. Engr. in construction of Skaneateles water system for this city, has stated to Mayor Fobes that it is almost imperative that water meters be used on all services in the city for the sake of economy in the use of water. Frank J. Schnauber is Cy. Engr.

ROCHESTER, N. Y.—E. A. Fisher, Cy. Engr., writes us that the city is not yet ready to receive bids for constructing the Cobb's Hill reservoir, and at present it is not known when the work will be let.

WOLCOTT, N. Y.—Board of Trade, G. H. Northrup, Pres., is advocating installing water-works.

ISLIP, N. Y. (L. I.)—Application has been made for permission to form organization to supply town with water. Perry S. Wicks, Bay Shore, and John E. King, Islip, are said to be interested.

PERTH AMBOY, N. J.—Water Board is to ask Council for $80,000 to extend new 24-in. main to Smith St. A new boiler is also to be secured for Runyon Station.

BLOOMFIELD, N. J.—Town has voted to purchase plant of Orange Water Co. for $90,000.

EAST ORANGE, N. J.—Bids are asked until Feb. 15 for two pumping engines of 4,000,000 gallons capacity each; also three water tube boilers with condensers, feed pumps, feed water heater, economizer, valves and piping. C. C. Vermeule, 203 Broadway, New York, Consult. Engr.; Stephen M. Long, Cy. Clk. (Advertised in Engineering News.)

JERSEY CITY, N. J.—Street and Water Commissioners have passed resolutions asking finance board to issue $190,000 of bonds for new water mains.

ORANGE, N. J.—New pipe line, 26,650 ft. long, 24-in. diameter, to be constructed from reservoir to city, is reported under consideration. Cost would be about $100,000.

WASHINGTON, PA.—Citizen's Water Co., J. V. Clark, Supt., according to reports, is to put in new 3,000,000-gallon pump soon, and is also to repair distributing reservoir.

PITTSBURG, PA.—The expert commission, which is to pass on plans for filtration system for this city is composed of John C. Hill, Chief Bureau of Filtration, Philadelphia, Rudolph Hering, New York, and Col. A. M. Miller, Washington, D. C.

BEAVER, PA.—Stated that representatives of Beaver Valley Water Co. have made offer of $100,00 for purchase of borough water-works.

LITITZ, PA.—Borough votes Feb. 14 on $45,000 bond issue for installing water-works. Chas. Derr is Secy. Councils.

CRAFTON, PA.—Council has taken action on appropriating $1,000 for sinking test wells; action is taken owing to dissatisfaction with supply furnished by Chartiers Water Co.

JOHNSTOWN, PA.—South Fork Water Co., according to reports, is to erect another dam, doubling its present supply.

PHILADELPHIA, PA.—Bids are asked by Department of Supplies, 312 City Hall, until Jan. 30 for iron water pipe and special castings for Water Department. Frederick J. Shoyer, Dir.

BALTIMORE, MD.—Bids are asked Board of Award, City Hall, until Feb. 10 for erecting a steel stand-pipe. Alfred M. Quick, Water Engr. (See proposal advertising columns.)

BALTIMORE, MD.—Water Board may be granted $172,000 for providing means for purification of water supply. Alfred M. Quick is W.-W.Engr.

NORFOLK, VA.—Councils Water Committee has been discussing installation of meters in 7th Ward.

HEFLIN, ALA.—Franchise for water-works and electric lights granted to F. F. Taylor and W. W. Merrill.

GADSDEN, ALA.—City votes to issue $100,000 of bonds for constructing water-works.

CHATTANOOGA, TENN.—Bids are asked until Feb. 24 for constructing pumping plant, including pump and boiler house, pumping machinery and connections to wells and reservoir, at the new military post at Chickamauga Park, Ga. Address Capt. H. W. French, Q. M., Quarmaster's Office, Chattanooga. (See proposal advertising columns.)

DAYTON, O.—Bids are asked until Feb. 2 for furnishing and delivering 1,000 95-E stop boxes of the "Morgan" style. Louis Haas, Pres., Bd. Pub. Service; Wm. F. Miller, Clk.

TOLEDO, O.—Bids are to be called soon by city for laying submerged water main under Maumee River, from Water St. to Main St., at an est. cost of $20,000.

TIFFIN, O.—New water-works contemplated. Stated that council would like to receive from hydraulic engineers estimates, plans, etc., for plant. C. J. Peters is Cy. Engr.

DAYTON, O.—Following bids were received by Board Public Service Jan. 20 for water meters: National Meter Co., New York, $9,444; Union Water Meter Co., Worcester, Mass., $5,758; M. J. Gibbons, Dayton, O., $5,808; Pittsburg Meter Co., Pittsburg, Pa., $5,815; Hersey Mfg. Co., Boston, Mass., $7,280; Neptune Meter Co., New York, $7,671; Henry R. Worthington, New York, (1) $5,494, (2) $5,164; Buffalo Meter Co., Buffalo, N. Y., (1) $6,809, (2) $5,149.

YOUNGSTOWN, O.—Plans for local filter plant being made by F. M. Lillie, Cy. Engr., are reported as nearly completed.

MARIETTA, O.—Stated that council will take up matter of installing filtration plant.

BARBERTON, O.—Council has approved plans and specifications for two 30,000-gallon pumps and two 150-HP. boilers.

IRONTON, O.—Council has appropriated $1,000 for purchase of meters.

NORWOOD, O.—Village will issue $6,500 of bonds for water-works extension.

FRANKFORT, IND.—Ordinance before council granting franchise to Frankford Water-Works Co., for 15-year term calls for wrought iron pipe, lined with cement and laid in cement.

CORUNNA, MICH.—City will vote on putting in works to cost $30,000 or $40,000.

SAGINAW, MICH.—Clerk Board Public Works has been directed to call for bids until Feb. 11 for furnishing castings, cement, sewer pipe, etc., until Jan. 1, 1905.

GRAND RAPIDS, MICH.—Bids are asked by the Board of Public Works until Feb. 5 for furnishing f. o. b. cars Grand Rapids, the following: 103 tons 6-in. c. i. pipe, 70 tons 8-in., 30 tons 10-in., 276 tons 12-in., 50 tons 20-in., 158 tons 24-in., 377 tons 30-in., 47 tons special castings, 50 6-in. valves, 9 8-in., 3 10-in., 8 12-in., 4 16-in., 3 20-in., 3 24-in., one 30-in., and 50 hydrants. (See proposal advertising columns.)

IRONWOOD, MICH.—Steps are stated to have been taken for appointment of receiver for Ironwood Water Co.

LUDINGTON, MICH.—Board Public Works is asking special election to vote funds for water-works improvements. It is proposed to extend intake pipe 1,000 ft.; est. cost of improvements is about $8,000.

SAUGATUCK, MICH.—Plans are reported in preparation for new water-works for this place. Construction of reservoir on Bald Head Hill is favored.

MOUNT VERNON, ILL.—Council is stated to have granted concessions to Citizens' Gas, Electric & Heating Co. H. R. Kingman, Secy., in return for which company will build additional reservoir or provide additional water facilities at a cost of $15,000.

CHICAGO, ILL.—Geo. W. Jackson, Ch. Hydr. Engr., 75 La Salle St., is preparing plans for proposed high pressure water system, for which special aldermanic commission, Honore Palmer, Chn., has been appointed.

CHICAGO, ILL.—Alderman Hunter has introduced proposition before finance committee for extension of water mains to Austin. The entire cost of the work would be $500,000.

PROPHETSTOWN, ILL.—Des Moines Bridge & Iron Works, Des Moines, Ia., at $9,000 was stated to be lowest bidder, Jan. 19 for constructing village water-works.

WINTHROP HARBOR, ILL.—Winthrop Harbor Water & Supply Co. has been incorporated with $5,000 to put in water-works and light, heat and power plant. G. A. Truesdale and R. R. Cowie are interested.

RACINE, WIS.—Contract for installing three new boilers in La Crosse, Wis., pumping station has been let to S. Freeman & Sons, Manufacturing Co., Racine, for $9,484. The same company was awarded contract for six 250-HP. boilers for 14th St. pumping station, Chicago, Ill., for about $100,000.

ST. PAUL, MINN.—City Engineer Rundlett is stated to have advised water board to spend $44,000 for improvements this year, to be used as follows: Improvements at Vadnais and Pleasant Lakes, $22,000; deep well at Vadnais, $2,000, 2,455 ft. of enclosed conduit between Vadnais and Pleasant Lakes, $14,000; protecting the shores of Centreville Lake, $6,000.

DULUTH, MINN.—City votes in February on $50,000 issue of bonds for use of water board for construction purposes.

HANLEY FALLS, MINN.—Bids are asked until Feb. 8 for $5,000 water-works bonds. C. F. Magnuson, Village Recdr.

FORT LEAVENWORTH, KAN.—G. H. Meredith, Des Moines, Ia., at $3,927 was low bidder for constructing water mains to National Cemetery and rifle range at this post.

LAWRENCE, KAN.—Charter of local water company has been extended for 20 years, to enable it to raise money for improvements.

ASHLAND, NEB.—Village works likely.

DIXON, NEB.—Town works, costing about $1,500, probable.

FARGO, N. DAK.—Council stated to be considering purchase of high duty pump for water plant.

LEOLA, S. DAK.—Money is being raised for sinking artesian well to supply town.

THERMOPOLIS, WYO.—Omaha parties are stated to have formed company to construct canal from Big Horn River to water land near here, and also to supply power for Copper Mountain Mines.

GREAT FALLS, MONT.—Pondera Canal Co. has been incorporated with $200,000 capital by Thos. Curry, Mark S. Darling and Patrick Kelly.

ST. LOUIS, MO.—Bids are asked until Feb. 18 for furnishing and erecting 150,000-gallon steel tank with trestle at Jefferson Barracks, Major Thomas Cruse, Dept Q. M.

BRINKLEY, ARK.—Water-works franchise here granted to J. J. Farrell.

BEAUMONT, TEX.—Marion K. Fletcher has been appointed permanent receiver for the Beaumont Water Co. It is planned to issue $100,000 in receiver's certificates with which to complete the plant, the building of which has already been started, and these will be turned over to A. B. Sanders, who has the contract for constructing the plant.

ROSENBERG, TEX.—Stated that Messrs. Lawson & Wood will establish irrigation system near here.

BAY CITY, TEX.—Stated that Colorado Canal Co. will increase pumping plant so as to irrigate about 4,000 additional acres.——Stated that Heubener Bros., Bay City, will establish irrigation plant near here.

ORANGE, TEX.—Oriental Rice Co., according to reports, is to build seven miles of irrigating canal near here.

GRAND FALLS, TEX.—Grand Falls Lake & Reservoir Co. may establish irrigation system near here. G. W. Otis may be interested.

GROVETON, TEX.—Trinity County Lumber Co., according to reports, will establish water-works for this place.

WALLISVILLE, TEX.—Stated that Old River Rice Co. will install amount of irrigation machinery near here.

KANSAS CITY, MO.—Ordinances are stated to be pending before council providing for laying of 14 miles of new mains and ordinances have been approved for six miles. Est. cost of work is $102,500.

DURANT, IND. TER.—W. S. Shannon, Town Recdr., writes us that no plans for the proposed works have yet been prepared by Burns & McDonnell, Engrs., of Kansas City, Mo.

FORT COLLINS, COLO.—Number Eight Reservoir Co. has been incorporated with $100,000 capital. Benjamin H. Eaton and Ellis Smith are interested.

MONTROSE, COLO.—Vernal Mesa Ditch & Reservoir Co. has been incorporated with $5,000 capital. Rolla Butterfield is interested.

PUEBLO, COLO.—Plat of reservoir No. 1 has been filed by J. E. Rizer, Secy., South Beulah Land & Reservoir Co. It will contain 102 acres and will cost $410,000 when completed. Water is to be taken from south fork of St. Charles River.

BLANCO, N. MEX.—Referring to proposed irrigation system of San Juan Canal & Development Co., we are informed that surveys of systems are now being made. System will consist of main canal and laterals, of over 100 miles in length, and will reclaim about 40,000 acres of land. Town sites are under consideration by company, as well as power proposition. Jay Turley is Ch. Engr.

NORTHPORT, WASH.—Northport Water Co. has been incorporated with $40,000 to put in plant at this place. Chas. S. Slauson, Northport, and Isaac W. Anderson, Spokane, Wash., are interested.

BELLINGHAM, WASH.—Council is stated to have instructed Superintendent of Water-Works to duplicate present machinery used at the pumping station.

SEATTLE, WASH.—Laying of water mains in 1st Ave. South, at est. cost of $15,500 authorized. R. H. Thomson is Cy. Engr.

WASCO, ORE.—City will vote on bond issue for works and sewers.

THE DALLES, ORE.—Bids are asked until Feb. 10 for material and labor for constructing water-works for the city. E. M. Cummings Dexter Horton Bldg., Seattle, Wash., is Consult. Engr.; J. M. Fillon, Cy. Recdr. J. M. Fillon writes us that cost of work is about $50,000. Wood stave pipe is to be laid and concrete reservoirs constructed.

SANTA ANA, CAL.—Stated that city will be compelled in near future to put in a new pump at the water-works at an expense of $15,000.

BAKERSFIELD, CAL.—Sumner Water Co. will, it is stated, soon erect large reservoir above Kern to store water in case of emergency. Company will also put in larger mains.

CRESCENT CITY, CAL.—Trustees have adopted resolution to construct water works.

SAWTELLE, CAL.—Sawtelle Water Co. has been incorporated with $50,000 capital. Wm. E. Gillis and A. M. Jamison are interested.

WHITTIER, CAL.—Walter E. Butler, Cy. Clk., writes us that bids will be received probably latter part of February for proposed extension of municipal works. City will install triple expansion pump, 2,250,000 gallons capacity, air compressor of same capacity, and will spend about $7,000 for pipe.

COMPTON, CAL.—Compton Water & Lighting Co. has let contract for water tower to S. J. Smith. Water mains are to be extended also.

OAKLAND, CAL.—Council committee on municipal water supply has filed its report. The proposition of Bay Cities Water Co. to install supply from Mount Hamilton was rejected. The Contra Costa Water Co., which owns present works, has offered to arbitrate cost of its plant with city, and this is favored by the committee. Warren Olney is Mayor.

SAN FRANCISCO, CAL.—Board of supervisors are to send memorial to congress asking for necessary legislatinn to grant rights of way in Hetchy Valley and Lake Eleanor for securing a water supply. A former application for these rights of way was denied by the Secretary of Interior.

FRESNO, CAL.—Montpelier Ditch Co. has been incorporated with $2,250 capital. G. C. Roeding is interested.

GRIDLEY, CAL.—Necessary 10,000 acres of land has been subscribed, and it is said irrigating ditch of Butte County Canal Co. through this section will be constructed. George Thresher is local representative of company.

MESA, ARIZ.—Referring to proposed steam pumping plant of Tempe Canal Co., we are informed that plant is to be for irrigating purposes, for developing 2,600 miners inches of water from underground flow. Kind of plant has not been decided as yet. It may be central electric power plant transmitting alternating current to pumping station, or it may be made of five independent plants. Water tube boilers, Corliss engines or steam turbines, alternating current generators, transformers, motors centrifugal pumps, etc., will be installed. Est. cost of plant is $170,000. P. E. Fuller, Mesa, Ariz., is Des. Engr.

EMMET, IDAHO.—J. H. Forbes and H. C. Oliver, who have franchise for electric plant here, are also said to contemplate establishing water-works later on.

SALT LAKE CITY, UTAH.—In his annual report Frank L. Hines, Supt. W.-W., recommends that part of the city lying south and west of a line drawn from Ninth South and Seventh East and running north and west to the O. S. L. depot be put on a pump system and supplied by the wells below Liberty Park. The plant could be put in for about $46,000.

SALT LAKE CITY, UTAH.—F. L. Hines, Supt. W.-W., writes us under date of Jan. 18 that bids will be asked soon for 30 hydrants, 15,000 ft., water pipe and 75 valves. Further information can be obtained of L. P. Kelsey, Cy. Engr.

SALT LAKE CITY, UTAH.—Plan is stated to be agreed upon by government and farmers here to convert Utah Lake into government reservoir, to cost $1,000,000. This would redeem 100 000 acres in the Salt Lake Valley.

WESTMOUNT, QUE.—Report on feasibility of filtration system for this city has been made by E. L. Fellows, C. E. Three systems are suggested, cost ranging from $52,000 to $125,000.

MONTREAL, QUE.—Montreal Water & Power Co., has instructed its engineer, F. H. Pitcher, to secure plans for construction of system of filtration, showing the advantages of the different systems in use and the cost of installing and operating them.

LEVIS, QUE.—Contract for constructing local waterworks has been let to Dussault & Power, for $287,000.

PORT ARTHUR, ONT.—Engineer in charge reported as calling for bids until Jan. 31 for completing work on sections 1 and 2 of city water-works and sewerage systems.

OSHAWA, ONT.—Willis E. Chipman, C. E., Toronto, Ont., has been engaged to report upon the construction of a water-works system. The ratepayers have recently voted in favor of a supply from the lake.

NEW COMPANIES.—Rancher Ditch Co., Forsyth, Mont., has filed articles of incorporation and proposes to construct 10 mile ditch this spring.——Shinnston Light & Water Co., Shinnston, W. Va.; to erect, maintain and operate water-works and sewerage system; $10,000; F. M. Powell, L. J. Rowand, Ed. Short.——Providence Pioneer Irrigation Co., Providence, Utah; $3,000; Jacob Zollinger, Oscar F. Rice; Joseph Campbell.

SEWERAGE.

TAUNTON, MASS.—Sewer Commissioners estimate a reduction of $10,000 in cost of proposed sewer.

HAVERHILL, MASS.—Hale St. residents advocate new sewerage system.

FITCHBURG, MASS.—Council appropriates $2,000 for completion of plans and specifications for sewage disposal system.

ROCKVILLE, CONN.—George Forster, Mayor, writes us that $300 appropriation for preliminary work on filtration plant has been made. Committee will investigate project

PUTNAM, CONN.—F. W. Perry, Mayor, writes us that no action has been taken regarding proposed sewer system.

FRANKFORT, N. Y.—Plans and estimates for proposed sewerage system being considered by State Board of Health. Will be voted upon in spring, if favorably considered.

BUFFALO, N. Y.—Bids have been received by Francis G. Ward, Comr., for constructing 42-in. iron face main to be laid in Hamburger St. overflow sewer. Bids: H. P. Burgard, 438 Prudential Bldg., $46,900; Miller & Franklin, 802 Ellicott St., $48,800; Joseph F. Stabel, 1127 Niagara St., $48,000; Dark & Co., 654 Main St., $49,000.

RYE, N. Y.—Reginald P. Sherman, citizen-member Bd. Health, writes us that preliminary survey has been ordered and report by engineer for proposed general sewer. Report will be received at Portchester Town Rooms on Feb. 4 at meeting of Board.

BROOKLYN, N. Y.—Bids asked until Feb. 10 by Borough President, Room 15, Municipal Bldg., for constructing sewer in 84th St.: Engineer's estimate; 650 lin. ft. 15-in. and 750 lin. ft. 12-in. stoneware pipe sewer; laid in concrete; 12 manholes and receiving basins; 53,500 ft. B. M. timber for planking and bracing. For constructing sewer in 38th St: 45 lin. ft. 24-in., 750 lin. ft. 18-in., and 780 lin. ft. 15-in. stoneware pipe; sewer laid in concrete; 15 manholes, three receiving basins; 10,500 ft. B. M. foundation planking.

BUFFALO, N. Y.—Francis G. Ward, Comr. Pub. Wks., received bids on Tuesday for three sewers. Lowest bidder for each were: Sewer in Hertel Ave., Miller & Franklin, $18,900; sewer in Angle and Heath Sts., C. G. Steinwachs, $7,590; sewer in Merrimac Ave., H. P. Burgard, $6,000.

SENECA FALLS, N. Y.—Sewer system project will be voted on in March.

BROCKPORT, N. Y.—Appropriation of $14,278 for sewer system approved by State Comptroller.

SENECA FALLS, N. Y.—Taypayers will probably vote upon another sewerage proposition at March election.

NEW YORK, N. Y.—Bill providing for proposed trunk sewer to drain Westchester County, between White Plains and Woodlawn, is said to have been drafted and ready for legislature. Cost is variously estimated at from $750,000 to $2,000,000.

LONG ISLAND CITY, N. Y.—Bids asked until Feb. 1 by President, Borough Queens, for constructing sewers in Seventh, Sixth, Fourth, Ninth, Eleventh, Academy and Lawrence Sts. and in Ludlow Ave. and in Victor Pl.

BINGHAMTON, N. Y.—S. E. Monroe, Cy. Engr., writes us that nothing has been done toward constructing Fourth Ward Sewer. Bill will be introduced authorizing expenditure of $85,000.

HADDONFIELD, N. J.—Sewage disposal plant will be built if $200,000 bond issue materializes. For particulars see Streets and Roads.

JERSEY CITY, N. J.—Board of Street and Water Commissioners on Tuesday passed resolution asking appropriation of $190,000 for enlarging Newark Ave. main.

VAILSBURGH, N. J.—Bids asked until Feb. 10 for constructing sewerage system. Work includes 2,981 ft. of 12-in. pipe, 11,000 ft. 10-in. pipe, 27,863 ft. 8-in. pipe, 122 manholes, 32 flush tanks, 4,000 cu. yds. of rock. Andrew R. Fitzsimons, Clk. Eugene A. McMurray, Ch. Engr. Advertised in Eng. News.

PITTSBURG, PA.—Plans for the entire rebuilding of downtown sewer system of this city are being prepared by engineers of Department of Public Works. Plans include trunk sewers on Liberty St. and on the Allegheny wharf, and one along the Monongahela wharf from Ross St. down. The work will have to be done within the next few years, and the cost will be very heavy. E. M. Bigelow is Dir. Pub. Wks.

PITTSBURG, PA.—Trunk sewers will be built on Monongahela Wharf and on Liberty Ave. Plans completed for downtown sewer system. Director, E. M. Bigelow.

YORK, PA.—Councils have passed finally and Mayor has signed amended $400,000 loan ordinance, which provides for the erection of sanitary sewerage system and disposal plant.

YORK, PA.—Council Ways and Means Committee will receive bids until Jan. 29 for $400,000 4% sewer bonds.

PHILADELPHIA, PA.—Specifications for rebuilding portions of Cohocksink sewer being prepared.

HYATTSVILLE, MD.—Jos. R. Owen, Pres. Council, informs us that a bill is being prepared for the legislature to authorize issue of bonds for local sanitary sewers. T. Chadler Hatton, Wilmington, Del., is Des. Engr.

DENTON, MD.—Henry P. Lewis, Wm. H. Demese and Albert G. Towers appointed committee to prepare bill for legislature asking for issuance of bonds for sewerage system.

BALTIMORE, MD.—Senator John Gill, Jr., introduced Bruce Sewerage bill in Senate at Annapolis last week. If endorsed and voted upon favorably, $10,000,000 bonds will be issued.

WASHINGTON, D. C.—Specifications for screen machinery, etc., for pumping station, for which bids are called for March 5, are on file in Engineering News office, New York.

RICHMOND, VA.—City Engineer estimates that $1,500,000 is needed to complete sewerage system.

ENSLEY, ALA.—Steiner Bros. purchased $60,000 sewerage bonds. Work upon sewers will begin soon.

GRAND RAPIDS, MICH.—L. W. Anderson, Cy. Engr., writes us that plans are being prepared for $100,000 West Side sewer.

GRAND RAPIDS, MICH.—West Side trunk sewer approved by Council. Bids will be asked. Two contracts to be let: One for constructing sewer itself, and one for pumping station and dike.

LANSING, MICH.—The Weinman Creek sewer is estimated to cost $53,000. Assessments will probably be made to cover cost.

GRAND RAPIDS, MICH.—Eleventh and Twelfth Wards probably will have sewer systems constructed. City Engineer Anderson estimates cost of Canal St. sewer at $12,500 and Ottawa and Island Sts. at $14,240.

SAGINAW, MICH.—Bids asked until Feb. 11 for drain tile, sewer pipe, Portland cement, natural cement, etc. W. H. Barton, Clk. Bd.

MISHAWAKA, IND.—Fred Rankert awarded Calhoun and Joseph St. trunk sewer contract.

ROCKFORD, ILL.—Board Local Improvements approves Eighth St. and 14th Ave., sewers. Public hearing on Jan. 30.

ROCKFORD, ILL.—Sewer extensions on Eighth St. and Fourteenth Ave. Authorized by Board Improvements.

ST. PAUL, MINN.—Bids asked until Jan. 28 for constructing George St. sewer. R. L. Gorman, Clk. Bd. Pub. Wks.

ATHENS, ALA.—Nashville Plumbing Co. awarded contract for sewerage system, at $11,064. About four miles of sewers.

NASHVILLE, TENN.—Council will be asked by Board Public Works for $1,200 for constructing branch sewer to the new school house.

NASHVILLE, TENN.—Proposed cotton factory sewer from Market and Van Buren Sts. to river will be 1,000 ft. long.

FINDLAY, O.—Bids asked until Feb. 2 for constructing several sewers. F. C. Ray, Cy. Clk.

SANDUSKY, O.—Council has been asked to authorize public improvements, including sewers, aggregating $350,000. John W. Miller, Cy. Engr., estimates cost of Warren St. sewer at $27,262.

HAMILTON, O.—Bids for sanitary and for storm sewer referred to City Solicitor. W. N. Andrews lowest bidder for both sewers.

YOUNGSTOWN, O.—West Federal St. and West Woodland Ave. sewer contracts are held over. Said that Sherman de Groodt was lowest bidder on West Federal St. contract and John Grady lowest bidder on Woodland Ave.

CINCINNATI, O.—Bids asked until Feb. 15 for purchase of sewerage bonds.

COLUMBUS, O.—$600,000 will be asked council for sewage disposal plant.

HOLGATE, O.—Council authorizes letting of sewer contract. Will be 1,700 ft. long.

NORWOOD, O.—Bids asked until Feb. 15 for purchase of $3,900 sewer bonds. W. E. Wichgar, Cy. Audr.

YOUNGSTOWN, O.—Petitions received by Council for sewers.

FINDLAY, O.—Council passed ordinance for constructing sewers on various streets.

CARO, MICH.—Election held for $35,000 sewer system bond proposition. Decided vote against it.

DELRAY, MICH.—Elkhart Construction Co., Elkhart, Ind., awarded contract for McGregor Ave. drain sewer, at $23,000.

GALESBURG, ILL.—$528,000 will be expended upon extensive sewer system.

MADISON, ILL.—Taxpayers met to protest against building proposed $108,000 sewer. George F. Cowdy is said to be chairman of committee.

JANESVILLE, WIS.—C. V. Keich, Cy. Engr., writes us that plans are being prepared for district sewer.

ATLANTIC, IA.—Council orders construction of sewer system.

DULUTH, MINN.—We are informed that contracts will likely be let about April 15 for sewers and paving to cost about $150,000. W. B. Patton is Cy. Engr.

LYONS, IA.—Bids received for Pearl St. sewer: R. E. Jackson of Cedar Rapids, $7,536; Shepard & Hanrahan, Des Moines, $7,254; W. D. Lovell, Des Moines, $7,996; Thomas Carey, Canton, $7,703, and George M. King, Des Moines, $6,895. No awards made.

ST. PAUL, MINN.—M. J. McMahon, Clk. Bd. Pub. Wks., writes us that Juno St. sewer project has been abandoned.

GLASGOW, MONT.—We are informed that preliminary surveys are being made for sewers, water-works and electric plant. G. E. Hurd, Mayor. Mahon & Patten, of Glasgow, are the Engrs.

KANSAS CITY, MO.—City Engineer Pike will let contract soon for extension of O. K. Creek sewer. Will be 10,600 ft. long.

SAN ANTONIO, TEX.—General Grout is preparing estimates for sewers for Forts Sam Houston, Clark, McIntosh, Ringgold, Brown and Camp Eagle Pass. Will cost $40,000.

DALLAS, TEX.—Said to be probable that sewer, several miles long, will be laid in South Dallas, to cost $12,000, for work alone.

Information concerning contracts to be let, or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

FORT MORGAN, COLO.—We are inf[illegible] that this place proposes to build a sewerage system [illegible] will be about three miles of pipe for the present [illegible] will be added to later. Information is wanted re[illegible] the construction of sewers by the town officials a[illegible] the Killebrey & Burk Construction Co. of Fort M[illegible]

PORTLAND, ORE.—Brooklyn sewer p[illegible] will be started upon soon. Sylvester White is in[illegible]

SAN JOSE, CAL.—Mayor Worswick st[illegible] that many new branch sewers will be constructed.

FRESNO, CAL.—I. Teilmann, Cy. Engr., [illegible] us that nothing has been done regarding a septic [illegible]

SACRAMENTO, CAL.—Henry Dehn wa[illegible] contract for construction of 8-in. vitrified [illegible] sewer. M. J. Desmond, Cy. Clk.

LOS ANGELES, CAL.—Brick to be used [illegible] sewerage construction has caused much discussio[illegible] Council. Awards will be made soon. Contract call[illegible] 20,000,000 bricks; lowest bid $6.40 a thousand.

SAN JOSE, CAL.—City Engineer is prep[illegible] plans and specifications for number of sewers which [illegible] to be constructed at an early date, most important [illegible] which will be constructed on South Tenth St. for a di[illegible] of 3,100 ft.

SACRAMENTO, CAL.—Specifications for [illegible] G and H, 25th to 27th Sts., were adopted and [illegible] ordered to begin; also same order made for sewer H and [illegible] 20th, 21st Sts.

PRESCOTT, ARIZ.—Council may purch[illegible] the John Duke ranch at $35,000 for a sewer farm.

SEATTLE, WASH.—Plans for Ewing St. [illegible] have not been approved yet by Board Public Work[illegible] Bids were asked until Jan. 12, but improvement, we are informed, probably will not be advertised for some time on account of sale of bonds for this district. A. H. Dimock, Des. Engr.

SEATTLE, WASH.—T. I. Peterson has negotiated sale of local improvement bonds for Brooklyn and Latona sewer system; contract price, $58,051. It is expected that work will begin soon.

TACOMA, WASH.—Resolution adopted providing for construction of sewers in local improvement district No. 136.

SEATTLE, WASH.—Date for receiving bids for 27th Ave. sewer has been extended from Jan. 23 to Feb. 13. Specifications are on file in Engineering News Office, New York. Approximate bill of material and quantities: 27,106 lin. ft. of 8-in. pipe; 8,298 ft. 10-in., 4,340 ft. 12-in., 2,544 ft. 15-in., 286 ft. 18-in., 1,586 ft. 21-in., 1,876 ft. 24-in., 523 ft. 22 × 33-in. oviform brick, 323 ft. 28 × 42-in. oviform brick, 4,543 ft. 30 × 36-in. wooden box, 826 ft. 12 × 12-in. wooden box, 191 brick manholes, 20 wood manholes, 48 single inlet catchbasins, 3 double inlet catchbasins.

GARBAGE DISPOSAL—STREET CLEANING

SCHENECTADY, N. Y.—E. J. Berggren, of Schenectady, Chn. Garbage Disposal Com., writes us that he wishes to receive information regarding systems used in other cities for disposing of garbage and ashes in order to make a report to the City Council.

MONTCLAIR, N. J.—The following report on the collection of garbage was submitted by the special committee on garbage collection to the Town Council on Jan. 25, and was placed on file. No immediate action is probable.

"The special committee appointed in accordance with a vote of the Town Council to investigate the collection of garbage and ashes and their proper disposal respectfully reports:

"That in the opinion of the committee the proper method of garbage disposal in the Town of Montclair is by fire, and the committee recommends that as soon as the Town Council, taking into consideration the other pressing needs of the town, can arrange for the necessary cost, it employ an engineer to prepare plans and specifications for the collection of garbage at public expense and the disposal of the same by fire in a crematory to be built by the town and operated under its control. The committee further recommends that the collection and disposal of ashes be also considered with a view of determining whether or not they should be disposed of in connection with garbage.

"Respectfully submitted in behalf of the full committee, consisting of Messrs. John R. Livermore and Decatur M. Sawyer, for the citizens at large; Starr J. Murphy and C. D. Du Bois for the Town Improvement Association; Geo. B. Cornell and Henry V. Crawford for the Town Council, and M. N. Baker for the Board of Health."

NEWARK, O.—City Engineer stated to have recommended construction of garbage plant.

MASSILLON, O.—Committee on garbage disposal plant is to report at once.

MARION, IND.—Reported that suit is likely to be brought against city to abate nuisance produced by the maintenance of the garbage plant at its present location on the banks of the Mississinewa River.

GRAND RAPIDS, MICH.—Health Board has appointed committee to report on municipal system of garbage collection and the purchase of the plant of the Grand Rapids Garbage Co., the present holders of the garbage collection contract.

STREETS AND ROADS.

MANCHESTER, N. H.—A. W. Dean, State Highway Engr., is preparing plans for state highway from Nashua through Merrimack and Pemigewasset valleys to Fabyan's White Mountains, thence through Crawford Notch and east of Winnipiseogee Lake to Portsmouth, with laterals to other points. To be submitted to the next session of legislature. Public sentiment is said to be strongly in favor of project and favorable action is expected to be taken.

SPENCER, MASS.—George A. Craig, C. E., writes us that no improvements will be made on Cherry St., as reported.

EASTHAMPTON, MASS.—Petition being circulated for macadamizing Main St.

GLOUCESTER, MASS.—Orders have come up before council for improvements to Friend, Webster and Main Sts. Friend and Webster Sts. will be macadamized.

WOONSOCKET, R. I.—Council approves $45,000 appropriation for paving Main St. and portion of Cumberland St. Bitulithic blocks probably will be used.

PAWTUCKET, R. I.—Feb. 10 is set for hearing report on proposed Main St. widening.

WOONSOCKET, R. I.—Resolution passed by council providing an appropriation of $45,000 for paving, of which $38,000 will be devoted to the Main St. improvement and $7,000 for Cumberland St. The class of paving is not specified.

HARTFORD, CONN.—Supt. Housling estimates cost of Vine St. macadamizing at $7,000.

WEST HARTFORD, CONN.—A. B. Alderson, C. E., estimates cost of macadamizing and widening Farmington Ave. at $22,5[illegible].

NEW HAVEN, CONN.—Martin E. Pierson and P. N. Congdon, Bristol, awarded contract for section of highway to be built at Barkhamsted at $10,115 by Highway Commissioner Macdonald.

HARTFORD, CONN.—Gentlemen's Driving Club has laid matter of proposed speedway before Commissioners of Street Board, who are said to be in favor of its construction.

TROY, N. Y.—Bids will be advertised for, for paving various streets.

COHOES, N. Y.—Bids asked until Feb. 10 for paving Ontario, High, Mangam, Willow and Vliet Sts., Younglove Ave. and two alleys. Bids will be received for repressed vitrified brick, repressed vitrified block, sheet asphalt, asphalt block, granite block, Medina sandstone, resinate-creosote or bithulithic pavement. William J. Elliott, Clk. (Advertised in Eng. News.)

BROOKLYN, N. Y.—Engineers of Borough Park Department are said to have perfected plans for proposed speedway. To start near Crescent Athletic Clubhouse at Owl's Head, Bay Ridge, and extend along New York Bay shore to Fort Hamilton reservation. Width throughout to be 100 ft. Estimated length two miles. The Brooklyn Pleasure Drivers' Association has strongly advocated project and has been instrumental in having plans prepared. Cost is estimated at $1,000,000. Committee in charge: Charles T. Cranford, Chn.; Dr. Maurice T. Lewis, Charles A. Angell, Leslie Dodge, Matthew A. Belford, Thomas F. Byrnes and William H. Nelson.

GENEVA, N. Y.—Estimates prepared for improving several streets. Council considering same.

ITHACA, N. Y.—University Ave. extension project temporarily abandoned by council. Stewart Ave. may be widened instead.

BUFFALO, N. Y.—Bids received for paving: For repaving Court St., 42 ft. wide; lowest bidders; with Trinidad asphalt, Spec. A., German Rock A. & C. Co., Ltd., $8,276; with round edge fire-clay brick, Spec. B., Frank V. E. Bardol, $16,500.——Bids also received for Tonawanda, Clinton Sts., Hartman Pl., Walden and Crescent Aves.

ROCKAWAY BEACH, N. Y.—Extensive project advocated by Rockaway Beach Taxpayers' Association, Business Mens' Protective Association of Rockaway Beach, Arverne-by-the-Sea Association, Far Rockaway Taxpayers' Protective Association, United Associations of Taxpayers of the Fifth Ward, and many prominent property owners for building an 80 to 100 ft. wide roadway across Jamaica Bay, from Seaside to Pennsylvania Ave., Brooklyn. Boulevard would connect Fifth Ward with the Rockaways. City will be asked to build it.

BROOKLYN, N. Y.—Twenty-first Ward Democratic Club advocating improvement of Atlantic Ave. Borough President Littleton is said to favor paving of street from curb to curb.

ALBANY, N. Y.—Dallius St. paving ordinance will be considered on Feb. 1. Fred. V. Bresler, Clk. Council.

COHOES, N. Y.—Plans to widen Columbia St. at Columbia St. arch to be presented N. Y. Central R. R. at proposed conference.

ALBANY, N. Y.—State Engineer Bond writes us that no proposals for good roads improvements will be called for until spring.

UTICA, N. Y.—Council on Feb. 5 will designate kind of paving to be used on proposed improvement of many streets.

NEWARK, N. J.—Joint bridge committee, Essex and Hudson Bds. Freeholders, ask for bids until Feb. 18 for wooden block pavement to replace asphalt roadway of Fourth St., bridge.

PERTH AMBOY, N. J.—Smith St. property owners ask for paving of street. Will be advertised.

HADDONFIELD, N. J.—Bids will be introduced in legislature authorizing merging of Haddonfield and West Haddonfield and smaller towns into one borough. New borough would issue $200,000 improvement bonds, which includes street work. J. Morris Roberts, Mayor.

JERSEY CITY, N. J.—Street and Water Board awarded Brunswick St. extension to Henry Byrne on Tuesday.

LONG BRANCH, N. J.—Sairs Ave. extension debated at council meeting. Nothing definitely decided.

PLAINFIELD, N. J.—Dunellen-Myrtle Ave. extension matter meets approval of property-owners and Council Commissioners.

FREEPORT, PA.—Bids asked until Feb. 10 for paving Market and Fourth Sts., approximating 307 cu. yds. grading, 10,620 sy. yds. paving, 6,175 ft. curbing, four manholes, two inlets. Plans with G. B. Findley, Engr; John J. Mardorf, Clk. (Advertised in Engineering News.)

WILMINGTON, DEL.—Levy Court will meet on Feb. 2 and survey of Old Faulk Road will be again introduced by Commissioner Elliott.

EASTON, PA.—Bids asked until Feb. 4 for furnishing and laying street crossings and cobblestone paving for year. L. A. Francisco, Cy. Engr.

WASHINGTON, D. C.—Senate approves extension of Vermont Ave. to Howard University.

WASHINGTON, D. C.—Senator McComas has introduced bill providing for extension of Shepherd St. northwest from Connecticut Ave. to Idaho Ave.

RI[illegible]D, VA.—City Engineer's office estimates cost of paving all unpaved streets at $7,500,000. Street Committee will consider plan on Jan. 28.

CHARLESTON, S. C.—By a recent act of the council the improvements of streets and their maintenance has been placed under a board of public works. This work has heretofore been in charge of a committee of councilmen. The Mayor has recently appointed J. B. Adger, Pres. of board; F. C. Ford, H. Shackte, J. L. Mansfield, M. Israel and F. S. Hanchet as members of this board. Their terms of service vary from three to seven years.

ATLANTA, GA.—Forsyth, Decatur and Mitchell Sts. will be asphalted; cost will be, respectively, $6,250, $2,500 and $11,075.

ATLANTA, GA.—P. Thornton Mayre, Arch. for Atlanta Terminal Co., is said to estimate cost of plaza and general approaches to new station at $350,000.

MORRISTOWN, TENN.—Bids are wanted by Board of Pike Commissioners of Hamblen County, Tenn., until Feb. 25 for grading and macadamizing the streets and roads of this town and in Hamblen County. J. L. Ludlow, Consult. Engr., Winston-Salem, N. C. (Advertised in Engr. News.)

MEMPHIS, TENN.—Raleigh Ave. widening project advocated by E. M. Ford and other property owners.

TAMPA, FLA.—County Commissioners authorize paving of Bayshore Boulevard.

GREENVILLE, O.—A. W. Wilson, Mayor, writes us that all street improvements are finished.

GRAND RAPIDS, O.—H. Cresswell, Findlay, O., awarded paving contracts at $15,000.

LAKEWOOD, O.—Council will pave Lake Ave. Bituminous or concrete pavement will be used.

CLEVELAND, O.—Property owners advocating project to convert Jennings Ave. into boulevard that will connect city with Brookside Park.

ROCKY RIVER, O.—Bids asked until Feb. 18 for purchase of $8,000 bonds for improvement of North Ridge road. R. W. Bassett, Clk.

SPRINGFIELD, O.—W. H. Seiverling, Cy. Engr., has presented street paving plans to council. Lagonda, High and North Mechanic Sts. will be paved.

STRUTHERS, O.—Bids asked until Feb. 10 for purchase of bonds for repairing streets. Andrew R. Black, Clk.

TOLEDO, O.—F. I. Consaul, Cy. Engr., writes us that John St. paving contract was awarded H. P. Streicher, at $2,602, 1,547 sq. yds. Logan blocks to be used.

UPPER SANDUSKY, O.—William C. Ruopp writes us under date of Jan. 23, that 25 bids were received for improving Sandusky and Wyandotte Aves. From four to eight totals were received on each bid. Awards will be announced later.

CINCINNATI, O.—Bids asked until Feb. 17 for paving Laurel St. with asphalt. Geo. F. Holmes, Cy. Clk.

MASSILLON, O.—City engineer is to estimate cost of paving East Main St., from East Oak to the city limits, and South Hill from Main to Tremont Sts., and curbing and guttering part of Guide St.

CHILLICOTHE, O.—Walnut St. will be paved. Authorized by Council. C. B. Schaeffer, Cy. Clk.

GREENVILLE, O.—W. A. Brown, Jr., Village Clk., announces that sidewalk and curb resolutions have passed Council. Bids will be invited.

ADA, O.—E. A. Freshwater & Sons, New Cumberland, W. Va., awarded contract for paving Main St. at $18,969.

TOLEDO, O.—Henry Streicher awarded three street paving contracts; bids were for paving Ostrich Lane, with Medina curb, $2,138; for paving John St. with Berea curb, $2,602; for paving Prouty Ave. with Berea curb, $3,098.

BARBERTON, O.—J. Edward Collins, Village Engr., writes us that plans and specifications for Hopocan Ave. were accepted. Paved with brick, 3,566 sq. yds., cost, $8,487. Nothing has been done regarding High St. improving.

MASSILLON, O.—Richville Ave. and South East St. paving plans before council.

FINDLAY, O.—Frank C. Ray, Clk., announces that West Sandusky St. paving ordinance had been returned unsignel by Mayor Metcalf, and has become a law by limitation.

YOUNGSTOWN, O.—Bids were received on Jan. 25 for street paving.

ST. BERNARD, O.—Bids are asked until Feb. 11 for macadamizing Albert St. George Meyer, Village Clk.

LA PORTE, IND.—Lemuel Darrow, Mayor, is interested in project to build a macadam highway to Chicago.

INDIANAPOLIS, IND.—Improvement resolutions for several streets passed by Board.——Bids asked until Feb. 3 by Asbury H. Manuel, Audr., Jackson Co., for constructing gravel roads.

GRAND RAPIDS, MICH.—About $50,000 will be expended for street paving.——Grand River Boulevard to Granville project meets with favor. Engineer Williams has prepared plans for Grand Rapids Park and Boulevard Association. Will be 66 ft. wide.

GRAND RAPIDS, MICH.—L. W. Anderson, Cy. Engr., writes us that bids will be received for paving three streets with brick, at total cost of $150,000.

DETROIT, MICH.—Bids have been received for sand and gravel, cedar blocks, paving blocks by Department Public Works.

BAY CITY, MICH.—Estimates for Johnson St. paving approved by Council. Will cost $12,144.

HOUGHTON, MICH.—F. W. Cappelen, Consult. Engr. estimates cost of paving Shelben St. at $26,000.

GRAND RAPIDS, MICH.—West Leonard St. probably will be paved with brick on concrete foundation. Engineer's estimate is $44,610.

DETROIT, MICH.—Commissioner Maybury estimates cost of paving 300 streets at $1,000,000, many of which wil be improved this year. City may purchase all brick and cement to be used for same.

SAGINAW, MICH.—$175,000 will be spent for paving many streets.——Board of Supervisors recommend $18,500 be spent for county roads.

PEORIA, ILL.—Bids are asked until Feb. 1 for paving Washington St. Water St. paving is contemplated.——Farmers are planning project to narrow county roads from 60 ft. to 40 ft.

ALTON, ILL.—Council authorizes paving of Henry St. Spring improvements of streets will cost $25,000.

DANVILLE, ILL.—Board of Aldermen order paving of College St. and widening of Bryan Ave.

STERLING, ILL.—It is said that several miles of paving will be constructed this season.

STERLING, ILL.—S. J. H. Benner, Secy. Bd. Local Improvements and Supt. Streets of Sterling, writes us that ordinances were passed by the city council on Jan. 18 for paving with one course of brick the following named streets; the engineer's estimate of the amount of work in each street is also given with the total cost of the work estimated at follows: Fourth St., paving, $1.40 per sq. yd.; other paving, $1.50 per sq. yd; cement curbing, 5 × 24-in., 35 cts. per lin ft.: Fourth St., 22,208 sq. yds. paving, est. cost, $31,091; 8,650 lin. ft. 5 × 24-in. cement curbing, $3,028; engineering and legal expenses, $1,706; total, $35,825. A Ave., 1,260 sq. yds. paving, $1,890; 498 ft. curb, $174; engineering, etc., expenses, $103; total, $2,168. First Ave., 5,137 sq. yds. paving, $7,707; 1,507 ft. curb, $528; engineering, etc., expenses, $412; total, $8,647. Locust St., 16,636 sq. yds. paving, $24,954; 200 lin. ft. curb, $70; expenses, $1,251; total, $26,275. West Third St. (ordinance passed by council Jan. 4), 15,860 sq. yds. paving, $23,790; 3,833 lin. ft. curb, $1,342; expenses, $1,257; total, $26,388.

STERLING, ILL.—S. H. Benner, Secy. Bd. Local Improvements, writes us that Board resolved on Jan. 22 to pave Locust St.; estimates, 2,034 sq. yds. one course brick at $1.50 sq. yd., $3,051; 5% Engineering expenses $153. Total, $3,204.

SHELBYVILLE, ILL.—C. E. Chester, C. E., writes us that eight blocks of paving are proposed but tied up by court proceedings at present.

BELLEVILLE, ILL.—Council authorizes paving of the public square, cost to be $8,874.

FREEPORT, ILL.—Chicago St. to be paved. Council also authorizes paving of portions of Williams, Winslow, Oak Sts. and Galena Ave. Estimated cost, $51,692. $150,000 will be expended on improvements.

OLDHAM, S. D.—Several miles of sidewalk will be constructed in spring.

DULUTH, MINN.—Number of street improvements ordered, or now before Council.

DULUTH, MINN.—We are informed that it is expected to award contracts about the middle of April for considerable paving and sewer work, to cost about $150,000.

KANSAS CITY, KAN.—Wyandotte Co. Board Commissioners will build one-mile macadam road from Reidy road to Muncie Boulevard.

LINCOLN, NEB.—Bids asked until Feb. 15 for purchase of paving bonds. Beman C. Fox, Cy. Treas.

DE SOTO, MO.—John L. Thomas, Pres. De Soto Commercial Club, writes us that mass meeting of Jefferson county taxpayers was held last week at Hillsboro to consider matter of voting tax for road improvement.

ST. JOSEPH, MO.—Project being considered by Board Public Works for paving Fourth St. to stock-yards. Brick may be used.——Property owners along highway from Frederick Ave. to 102 Road ask that it be named Frederick Ave. Boulevard. Also petition County Court to macadamize it to width of 24 ft. instead of 16 ft. as court has decided.

ST. LOUIS, MO.—Board public improvements holds special meeting Feb. 2 to consider petitions for various street work. Hiram Phillips is Pres.

FORT SMITH, ARK.—City Engineer Bayley advocates street paving.

LITTLE ROCK, ARK.—Chester St. will be macadamized as authorized by Council.

BEAUMONT, TEX.—$100,000 Jefferson County road and bridge bonds have been purchased by State Board of Education for permanent school fund.

MUSKOGEE, IND. TER.—A. P. Murphy, Genl. Atty. for Creek Nation, is opposed to opening of roads through Creek and Cherokee Nations. Matter probably will be brought to notice of officials at Washington, D. C.

SEATTLE, WASH.—Council authorizes improving of Atlantic St., with plank roadway, $11,500; Ninth Ave., N. E., grading, $4,630; E. Madison St., $19,000.——Board Public Works has awarded contracts: To P. J. McHugh, grading Crockett St., $7,655; 19th Ave. and 19th Ave. North, $6,766; 25th Ave. South, $2,109; concrete walks on E. Republican St., $1,341. To George Walker & Co., wood sidewalks on 10th Ave. East, $12,770; on 15th Ave. N. E., $2,455. To Stirrat & Goetz, plank roadway, Utah St., $20,730.

PORTLAND, ORE.—Miller & Bauer were lowest bidders for paving Salmon St., at $10,539. Referred to Street Committee of Executive Board.

LOS ANGELES, CAL.—L. C. Brand has stated to Board of Public Works that he will build a $25,000 boulevard and present it to city.

SAN FRANCISCO, CAL.—Bids for construction of road to the pesthouse site received by board of public works. Lowest being $7,873, by Edward Malley. The estimate was $11,000. City Street Improvement Company was lowest bidder for construction of sewer for pesthouse, its bid being $305. All bids were taken under advisement. Bids are invited for repair of various sidewalks.

OAKLAND, CAL.—Board of Trade will advocate improving of Webster St. at cost of $45,000. Hugh Hogan is interested.

LOS ANGELES, CAL.—Many ordinances of intention to improve streets have been passed by Council.

POINT LOMA, CAL.—Col. A. G. Spalding, the sporting authority, has offered to construct oiled road from Roseville to military reservation boundary if city will construct similar road from the city to Roseville.

LOS ANGELES, CAL.—San Pedro St. improvement proposition is again being advocated by district property owners.

PASADENA, CAL.—T. D. Allin, Cy. Engr., writes us that West Colorado St. widening is being done under state law.

PASADENA, CAL.—North Pasadena Improvement Association advocating widening of Fair Oaks Ave.

LOS ANGELES, CAL.—Proposition to widen San Pedro St. will be presented to Council again. Said estimate cost is $142,600.

RIVERSIDE, CAL.—Robert Fitzsimmons awarded street paving work contract at $5,714.

LOS ANGELES, CAL.—Bids opened on Jan. 25 for street paving. Awarding contract for paving Hill St. postponed by Board of Public Works. Bid of Barber Asphalt Co. was $54,085; council probably will make award soon.

BERKELEY, CAL.—City Street Improvement Co. awarded contract for macadamizing and guttering, with concrete gutters, Howe St. O. S. Merrill, Town Clk.

ARIZONA.—Senate has passed bill authorizing Phoenix, Mesa and Tempe, Arizona, to issue bonds to amount not exceeding 2% of assessed property valuations, to complete wagon road from Salt River Valley to Salt River reservoir or Tonto Dam.

OGDEN, UTAH.—A. F. Parker, Cy.Engr., writes us that no street improvements will be made at present.

LONDON, ONT.—Council will advertise for street paving bids.

QUEBEC, QUE.—Hugh O'Donnell, Acting Cy. Engr., writes us that plans for Buade and Port Dauphin Sts. improvements have been prepared. Contracts will not be let until May.

MONTREAL, QUE.—Bids are asked until Feb. 1 for stone paving blocks. John Kennedy, Ch. Engr. David Seath, Secy.-Treas., 57 Common St.

MANUFACTURING PLANTS.

PITTSFIELD, MASS.—Stock company is to be formed to convert 3-story factory building on Renne Ave. into cold storage warehouse. Cold storage plant will be installed. Ex-Senator Wm. A. Whittlesey is interested.

PITTSFIELD, MASS.—J. L. & T. D. Peck Mfg. Co., Pittsfield, has issued bonds of $300,000 for enlarging its plant and substituting new machinery for old.

WORCESTER, MASS.—W. S. Hall, Secy. Worcester Color Co., writes us that the company's plant will be constructed of wood by the construction department of the Spencer Wire Co.; will be three stories, 60 × 35. Contracts will be let within a week (from Jan. 16) for engine, boiler, tanks, etc. New plant will be operated in connection with Spencer Wire Co., using its spent acid as base for colors. Thompson & Gallagher, Engrs., Worcester.

NEW BEDFORD, MASS.—The Frances Mfg. Co. has incorporated with $5,000 capital to manufacture curtain draperies and garments from cotton, wool, silk and jute. Plant will be located in Raynham, on line of Old Colony R. R., and will obtain power from a natural fall of water. Incorporators: Herbert H. Shumway, Taunton; William Y. Wilcox, Dighton; Thomas B. Johnson, Raynham, and

CONNECTICUT.—The Automatic Feeder Corporation has been incorporated in this state with $200,000 cap. stock to manufacture feeders for tack, nail and other machines.

HARTFORD, CONN.—Philip Hausling, Jr., Supt. Sts., has recommended that municipal asphalt plant be installed; guarantee on about 85,000 sq. yds. asphalt paving expires this year.

NEW YORK, N. Y.—Henry Heide will build an addition to his candy factory at Hudson and Vandam Sts. De Lemos & Cordes, 130 Fulton St., city, are Archs., and A. R. Wolff, same address, is Steam Engr. C. J. Goldmark, 66 New St., is Elect. Engr. New engines, generators and boilers will be installed. No details have been definitely decided upon.

NEW YORK, N. Y.—Contract for 4-story brick, slow-burning biscuit factory at E. 23d St., for Festis Biscuit Co., has been let to E. E. Paul, 289 4th Ave.; to cost $40,000. New equipment will be required.

SYRACUSE, N. Y.—Kane & Roach, Syracuse, will soon be in the market for machine shop equipment to replace that lost in the destruction of their plant on Jan. 7. It is expected that they will rebuild on a large scale without delay. The total loss was about $55,000, and the insurance about $35,000.

BROOKLYN, N. Y.—It is said that Richey, Brown & Donald, Greenpoint, Brooklyn, have been buying machinery to equip their temporary shops. The insurance for the destroyed property has been adjusted, and they will soon be able to call for a large amount of machine tools. Plans for new buildings are now under way. It is expected to begin work as soon as weather permits.

LOCKPORT, N. Y.—W. H. Harris is formulating plans for erection of a factory for manufacturing heating furnaces. He will carry on a general moulding business, employing 75 men. Site of factory will be near the Central R. R. Mr. Harris has just completed the financial arrangements.

STEWARTSVILLE, N. J.—The Fried Engineering Co., Orange, has secured options on a site here for a cement plant, which it will erect. Calvin T. Fried, Allentown, is the inventor of the Fried Gravity Dry Process Separator, a few days.

PITTSBURG, PA.—The packing room, engine room, and head of the new concern. Work on site will start in blacksmith shop and office of the glass plant of Cunningham & Co., Ltd., at South 26th and Jane Sts., were destroyed by fire on Jan. 15, entailing a loss of nearly $75,000.

SCRANTON, PA.—The Delaware & Hudson Co.'s Coal Department will begin without delay on a new breaker and washery to replace the ones at Olyphant on Jan. 17. About $150,000 will be spent on the new plant. Plans not yet outlined. F. M. Olyphant is Secy., 21 Cortlandt St., New York.

PITTSBURG, PA.—The American Sheet Steel Co., in ordering the W. Dewees Wood plant at McKeesport to start, is reported to have also arranged to expend $2,000,000 on extensions and improvements to it. Additional land has been purchased adjoining the mill.

ERIE, PA.—The Erie Chemical Co.'s engineers have completed plans for a new chemical plant at this location.

CHESTER, PA.—David Townsend, Trustee, will, on Feb. 4, by order of the U. S. District Court, sell land and improvements of the Eddystone Foundry and Machine Co., including 184 acres of land, together with foundry, machine and pattern shops, power house, material store house, office building, fixtures and stock.——John L. Price is negotiating for site for manufacturing concern.

BATH, PA.—Bath Portland Cement Co., Geo. W. Roydhouse, Pres., Fidelity Bldg., Philadelphia, has had plans started for 2,500-bbl. cement plant. Group of buildings of concrete and steel construction will be erected. Complete equipment, boilers, engines, dynamos, kilns, crushers, etc., will be required.

PHILADELPHIA, PA.—K. W. Peuckert, Arch., 234 S. 4th St., has opened bids and will soon award contract for 4-story brick and steel, 76 × 100 ft., store house for American Brewing Co. New equipment will be required. ——Contract for 5-story brick and steel, 50 × 140 ft., factory for Chas. Sinnickson let to Chas. McCaul Co., 10 N. 11th St.; est. cost, $25,000.

GLASGOW, PA.—Glasgow Iron Co., Pottstown, Pa., will soon start 1-story brick and steel fireproof building for rebuilding plant here.

LANCASTER, PA.—Empire Brewery, Joseph Haefuer, will soon have plans prepared for several new buildings, 2 and 3-story, brick and steel, fireproof. Power equipment, brewing machinery and ice machines will be installed.

INDIANA, PA.—A charter has been issued to the Shryock Brewing Co. to operate a brewery here. Cap. stock, $350,000. Company has recently purchased old water-works and plant will be put upon that site. Contracts will soon be placed. C. Watson is Pres., and Hugh M. Bell, Secy.

MEADVILLE, PA.—Plans completed for new foundry for Phoenix Iron Works Co., to be 60 × 220 ft., and equipped with modern appliances throughout.

BALTIMORE, MD.—Site has been purchased on which new cordage mill, employing 300 hands, will be erected by William J. Hooper Mfg. Co., 116 Smith St.

BALTIMORE, MD.—Contract for 4-story brick and steel, 40 × 100 ft., fireproof laundry and boiler house for House of Good Shepherd has been let to John T. Buckley, 918 Bolton St.; cost, about $40,000.

WASHINGTON, D. C.—A. P. Clark, Arch., 605 F St., N. W., has invited bids for 1-story brick and steel addition to boiler house of Herrick Brewing Co.'s brewery. New boilers will be installed.

GRAFTON, VA.—A Wood Phillips, Grafton, has purchased Webster Woolen Mills, and will organize a company to install machinery for increasing capacity and continuing mill.

PORTSMOUTH, VA.—Mill of American Fertilizer Co. here destroyed by fire on Jan. 20; loss about $100,000.

WHEELING, W. VA.—The Central Ice & Storage Co. has let a contract for an ice producing plant of 50 tons daily capacity to the York Mfg. Co., York, Pa. Company will erect addition to present building, 50 × 60 ft.

CHARLESTON, W. VA.—The Kelly Axe Factory at Alexandria, Ind., will remove to this city.

SMITHFIELD, N. C.—Smithfield Cotton Mills Co. intends, it is said, to spend $20,000 for improvements.

GASTONIA, N. C.—Treasurer Modena Cotton Mills has been authorized to erect additional mill this year, if he thinks it necessary.

GREENSBORO, N. C.—J. E. Sirrine, Arch., Greenville, S. C., is stated to be preparing plans and specifications for erection of cotton mill of Etowa Mills Co. Mill will have total of 15,000 mule spindle and 450 looms, and will represent expenditure of about $500,000. W. I. Young, Atlanta, Ga., is interested.

WELDON, N. C.—J. T. Evans and Jay Bradbury, both local parties, are interested in the organization of a company to build a cotton mill here. Subscriptions will soon be opened.

GREENSBORO, N. C.—The Johnson & Watson Co., Greensboro, incorporated with $100,000, will erect a building 45 × 90 ft., three stories high, for the manufacture of shoes. Site procured.

DUNN, N. C.—The South Dunn Furniture Co.'s plant was recently destroyed by fire. Loss in building, machinery and stock amounts to about $75,000. Insurance, $34,750. E. F. and M. T. Young and V. L. Stephens were among owners. Mr. Stephens says plant will be rebuilt as early as possible.

LIBERTY, S. C.—The Calumet Mfg. Co. of Liberty, recently incorporated by H. L. Clayton and associates, is arranging for the erection and equipment of its mill. Cap. stock, $150,000.

LIBERTY, S. C.—Calumet Manufacturing Co., recently organized with $40,000 capital, will shortly begin work on its plant for manufacture of fine yarns. H. L. Clayton is Pres.

GRANITEVILLE, S. C.—A stock company has been formed here with $400,000 capital to build four-kiln pottery. Work may begin soon. C. B. Willis, Graniteville, and Colin McLean, East Liverpool, O., are interested.

PICKENS, S. C.—Stated that work is to be commenced at an early date by Calumet Mfg. Co., H. L. Clayton, Pres. Company is capitalized at $40,000, and will manufacture fine yarns.

GEORGIA.—C. E. Parish, care of U., T. & T. Co., Harrisburg, Pa., writes us that he wants the names and addresses of manufacturers of paper making machinery. He intends to build a small plant in South Georgia, after further consideration of the matter. Information regarding the location for such a plant is also wanted.

HAWKINSVILLE, GA.—Railroad shops of Hawkinsville & Florida Southern Ry. Co., burned at Pitts some time ago, will be rebuilt at this place.

COLUMBUS, GA.—Construction will begin in early spring on a cotton yarn mill for the Calumet Mfg. Co. at Liberty. H. L. Clayton is Pres.

ATHENS, GA.—The J. C. McConnell Leather Mfg. Co. has decided to establish plant here for manufacture of leather belting. Work on building about started. Cap. stock, $50,000; 75 hands to be employed.

SCOTLAND, GA.—Neal & Andrews, of this place, associated with Dr. J. W. Neal, will establish up-to-date rice mill here.

GADSDEN, ALA.—The Southern Mfg. Co. is planning extensive additions to its plant and will soon install a dry kiln with capacity to dry 1,500 ft. of lumber per day. Some machinery purchased.

MERIDIAN, MISS.—Cotton mill is to be built here by company in connection with A. F. Knight, of Rhode Island. Stated that mill will be equipped with 15,000 spindles and 450 looms.

GULFPORT, MISS.—Stated that O. E. Thompson will construct a gum-carbo plant here, beginning work Jan. 20 or Feb. 1.

MERIDIAN, MISS.—The Queen City Cotton Mills Co. will be the name of the company which will build the new cotton mill at Meridian in connection with A. F. Knight, of Rhode Island. It is understood that the new mill will have an equipment of 15,000 spindles and 450 looms. If the machinery offered by Mr. Knight from a New England mill is not accepted, new machinery will be bought.

NEW ORLEANS, LA.—Nugent N. Isenberg, Greenville, Miss., is interested in erection of cotton batting mill in this city.

NEW ORLEANS, LA.—The Louisiana Cypress Lumber Co., located at Harvey Canal in Jefferson Parish, will erect a saw mill on the old site. It will be 40 × 235 ft., as nearly fireproof as possible, equipped for a double carrier and two carriages, and will cost about $125,000.

NEW ORLEANS, LA.—The National Biscuit Co. is looking for a site for a larger plant in this city. Pending the erection of suitable quarters a depot will be maintained at 540-44 South Peters St.

DAISY, TENN.—Capital stock of Buquo Lime Co. is to be increased by $25,000 for improvements. W. F. Orr, Jr., is Secy.

NEW ORLEANS, LA.—A. S. Cowand may establish oyster cannery here.

KNOXVILLE, TENN.—Knoxville Cotton Mills Co., according to reports, is to spend $50,000 for improvements.

HUMBOLDT, TENN.—The Humboldt Cotton Mills will be increased to double present capacity; will have completed 10,000 spindles. H. C. Burnett is Pres.

LOUISVILLE, KY.—Samuel Auerbacker of the Auerbacker-Gilmore Co., 319 W. Main St., and others are promoting a cold storage and ice plant to be built here at a cost of $200,000.

LOUISVILLE, KY.—Company, headed by Samuel Horner, Jr., Land Title Bldg., Philadelphia, Pa., will soon have plans started for $1,000,000 cement plant at this place. Buildings are to be of concrete and steel, and complete power equipment, boilers, engines, dynamos and special machinery, will be required. Contracts are not yet placed.

LOUISVILLE, KY.—K. B. Graham, owner of the Louisville Fire Brick Works at Highland Parks, destroyed by fire, says plant will be immediately reconstructed. New structure will cost about $16,000. A large part of the machinery was destroyed.

CLEVELAND, O.—Osborn Engineering Co. is preparing plans for a plant of the National Carbon Co., Cleveland, to be erected at Clarksburg, W. Va.

SPRINGFIELD, O.—David Brennan, Detroit, Mich., is interested in the organization of company to run a foundry here; company may also operate a maleable iron plant.——Kelly Board Roller Co. is having plans drawn for the erection of addition to its plant.——Stitzer & Co. will build a 4-story tobacco warehouse here.

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

PORTSMOUTH, O.—Contract for carpenter work for ice plant and cold storage house of Portsmouth Brewing & Ice Co. has been let to John Dawson, contract for brick work to Richard Dawson. Part of equipment is stated to have been secured.

ELYRIA, O.—Dean Electric Co. has organized with $300,000 capital to manufacture telephone switchboards and electrical apparatus. Company is building factory and is reported in market for power apparatus and machinery equipment. S. B. Rawson is Pres., and A. E. Baker, Secy.

SHELBY, O.—Stock house at the Shelby Steel Works, of U. S. Steel Corporation, destroyed by fire on Jan. 20.

ELYRIA, O.—The Dean Electric Co., Elyria, has organized with $300,000 to manufacture telephone switchboards and electrical apparatus. Company is building a modern factory and is reported to be in the market for power apparatus and machinery equipment. S. B. Rawson is Pres.; W. W. Dean, Vice-Pres., and A. E. Barker, Secy.

CANAL FULTON, O.—The Fulton Pipe Tool Co. proposes increasing its capital stock by $40,000 for the erection of a plant and the installation of machinery for the manufacture of industrial steel cars.

TOLEDO, O.—The Marine Boiler Works Co., of this city, has decided to make extensive repairs to its plant.

CINCINNATI, O.—Helmers, Bettermann & Co. will erect a large shoe factory on part of the site of the Cincinnati Ice Co.'s plant on Hunt St. A second factory building may also be erected on the remainder of the site a little later. Company has just bought this site for $40,000. The new plant will be seven stories high.

DAYTON, O.—The Gem City Acetylene Generator Co., just incorporated at Columbus with $25,000,000 cap. stock, will build a plant for the manufacture of acetylene lighting plants designed for the illumination of residences and all kinds of buildings. Company will secure a location here and proceed to erect suitable plants. E. J. Himes, Isaac Miller and J. D. Beard are interested.

SPRINGFIELD, O.—The Rogers Iron Co. expects to erect a new foundry building this spring.

JOHNSTOWN, O.—A 30-ft. flywheel burst in mill No. 2 of the Cambria Steel Co.'s plant here and resulted in a loss of $30,000 to the plant.

HARTFORD CITY, IND.—National Rolling Mills Co. has increased its capital stock by $400,000.

KOKOMO, IND.—Kokomo Canning Co. has incorporated with $25,000 capital to build canning factory. John W. Barnes is interested.

INDIANAPOLIS, IND.—Indianapolis Watch Co., proposes to build $400,000 factory in this city. Plant is to be 2-story, 300 × 100 ft. structure. Messrs. Lawrence and Mann, Denison Hotel, are said to be interested.

VINCENNES, IND.—The Vincennes Bridge Co. has increased its capital stock by $30,000, with a view to constructing a concrete building, having a floor space of 20,000 sq. ft.

WINNAMAC, IND.—The Winnamac Bridge Co. will spend $5,000 for new machinery in the shape of air compressors and riveters, bending rolls, structural punch, etc.

HAMMOND, IND.—The plant of the Chicago Steel Mfg. Co. will be rebuilt as soon as insurance is adjusted. Fire destroyed the harrow disk, steel fence post, wrought washer, horseshoe and steel departments, and damaged rolling mill department.

GRAND HAVEN, MICH.—Frank O'Neill, formerly foreman of the Burnham factory, and William Thieleman, of this city, will shortly open a factory for manufacture of gloves in the Gray Block, this city. Machinery is now being secured and plant will be in operation within a few weeks.

BENTON HARBOR, MICH.—The Metal Sectional Furniture Co., Chicago, will erect a plant here in the spring and will also conduct a general machine shop business.

DETROIT, MICH.—W. H. Anderson & Sons, makers of contractors' tools for sewer and cement work, have under consideration enlarging their lines of manufacture. This will mean an expenditure of about $150,000 for new buildings and machinery.

JOLIET, ILL.—Stated that factory for manufacture of hollow concrete building blocks will soon be established in this city.

CUDAHY, WIS.—The Holthoff Mfg. Co. are completing an extension to their boiler shops, and will install a new gas power plant.

MASINEE, WIS.—We are informed that the Joseph Dessert Lumber Co., of this place, has not yet decided on its proposed mill here.

COUNCIL BLUFFS, IA.—A company has been incorporated as the American Dressed Beef Co and is now negotiating for a site for a plant in this city for a large independent packing plant. Building will be put up costing $200,000, with a daily capacity of 500 cattle, 1,000 hogs and 500 sheep. Chas. E. McSweeny, Kansas City, will be Manager.

KANSAS CITY, MO.—The foundations for seven of the buildings of the Nelson Morris packing plant at Riverside are being put in by the R. J. Boyd Construction Co., and will soon be finished. The new buildings will include the fertilizer, hog killing, beef killing and canning departments; the bone house, sausage rooms and the lard refineries. The power house will be 180 × 115 ft. The buildings will be of brick and steel construction.

WACO, TEX.—Shippers' Compress Co. has been organized with $50,000 capital to construct cotton compressors, grain elevators, etc. W. C. Lawson is interested.

KOUNTZ, TEX.—Lumber mill, capacity, 100,000 ft. daily, is to be constructed near here. Theodore S. Wilkins, Milwaukee, Wis., is interested.

TEMPLE, TEX.—S. N. Hatcher is to establish mattress factory here.

ORANGE, TEX.—Lemon Lumber Co. will rebuild dry kilns, recently destroyed by fire on larger scale.

LUFKIN, TEX.—Twenty-ton ice plant to be constructed here.

DALLAS, TEX.—Reported that Iola Portland Cement Co., Iola, Ia., will take over properties of Texas Portland Cement & Lime Co. here, and will increase capacity of plant from 700 bbls. to 1,000 bbls. daily.

LIVINGSTON, TEX.—Livingston Lumber Co. is to double capacity of its lumber mill here.

DALLAS, TEX.—J. S. Mayfield Lumber Co., of Dallas, has increased its capital stock by $50,000.

FLATONIA, TEX.—Local parties may establish creamery here.

JASPER, TEX.—Lumber mill projected here.

HOUSTON, TEX.—Pratt Cereal Oil Co., Decatur, Ill., are said to contemplate establishment of plant here for extracting oil from rice bean and for manufacturing stock feed from rice products.

FLORESVILLE, TEX.—Creamery to be established here. J. S. Hemrichouse, New Braumfels, Tex., may be interested.

WALLISVILLE, TEX.—Stated that John C. Cook will establish planing mill here.

TACOMA, WASH.—P. L. White has taken out permit to begin construction work on the buildings of the Washington Parlor Furniture Co.; entire plant will cost $65,000.

WHATCOM, WASH.—The Washington Silk Co. will incorporate soon. Messrs. Butterworth and Smethurst, the promoters, propose to erect a silk factory at Bellingham.

SPOKANE, WASH.—The Spokane Brewing & Malting Co. will make improvements to cost $8,000.

SPOKANE, WASH.—A cold storage house will be erected in this city by a company incorporated by H. L. King and H. C. True, with $90,000 cap. stock.

PENDLETON, ORE.—Local papers state that F. S. Bramwell and Geo. Stoddard, of La Grande, have returned from Echo, where they have investigated the sugar beet situation in the interest of the La Grande factory, with a view of erecting a plant. The prospects are reported good.

MONTEZUMA, CAL.—The Montezuma Mfg. Co., whose plant has recently been finished, is reported to be planning an enlargement and the erection of a new bleachery.

SAN FRANCISCO, CAL.—Bids are asked by Wm. S. Patton, Asst. Q. M. Gen., Ch. Q. M., until Feb. 11 for constructing a frame bake house and furnishing portable oven at depot at Angel Island, Cal.

DAVISVILLE, CAL.—Theo. Schmeiser, the owner of the Schandoney Equalizer patent rights, has purchased ground on the S. P. Co.'s line in this town on which he will locate a 40 × 200 ft. building to be a machine shop and manufactory of the Equalizer. Equipment will include steam hammers, forges, iron and wood lathes, etc.

SAN FRANCISCO, CAL.—Building permit issued to Wunder Brewing Co., A. Maritzen, for alterations to plant on Greenwich St., near Scott, to cost $115,000.

LOS ANGELES, CAL.—Local papers state that the San Pedro, Los Angeles & Salt Lake City Ry. will locate its shops between Fourth and Seventh Sts., this city. H. Hawgood is Ch. Engr., Los Angeles.

STOCKTON, CAL.—Mel Clark has completed well at site of starch factory in the southwestern part of town. Plans are now being prepared for a 3-story building, 100 × 60 ft., for the factory, and a number of smaller buildings.

LOS ANGELES, CAL.—Reported that a large casting factory will be erected at Oxnard, in connection with J. F. Fulkerson's machine shop. A company has been formed by Henry T. Oxnard, of American Beet Sugar Co., to construct the plant. Castings costing $15,000 are to be used by the sugar factory alone.——A 3-story factory will be erected at Main and Jefferson Sts. for J. Niederer & Co. for the manufacture of store fittings and cabinet work.——The Los Angeles Stoneware Works is now enlarging its works. Three new kilns are to be built.

STOCKTON, CAL.—The National Ice Co. is erecting a storehouse to be operated in conjunction with its factory at Center and Taylor Sts. More machinery will be installed for cold storage purposes.

MOUNTAIN VIEW, CAL.—The Mt. Whitney Fruit Co., Oakland, will establish a cannery here. The Board of Trade can probably inform.

MARTINEZ, CAL.—Jas. M. Boyd, Cleveland, O., is here and has secured an option for a refinery up the river.

OAKLAND, CAL.—The Southern Pacific Co. has plans prepared for new equipment for the plant at West Oakland, which includes two new roundhouses, one of which will be constructed immediately.

TUCSON, ARIZ.—P. F. Houston, Portland, Ore., states that he will locate here and will also bring a box factory to this city.

HARRISON, IDAHO.—The Harrison Shingle Co. will construct a new dry kiln, 70 × 17 ft.

CHATHAM, N. B.—Walsh Bros. will build a new woodworking factory.

NORWOOD, ONT.—H. G. Buck and D. J. McLean propose building a mill for manufacture of cheese boxes and veneered materials.

NEWMARKET, ONT.—Davis & Son are considering the establishment of tannery here.

NORTH BAY, ONT.—Anderson Furniture Co. will erect furniture factory.

ST. THOMAS, ONT.—A bonus of $20,000 is granted by town to Pere Marquette R. R. to secure the location of its shops here.

MISCELLANEOUS CONTRACTS.

BOILERS, ETC.—Barberton, O.—See under Water-Works.

BOILERS.—Washington, D. C.—See under Manufacturing Plants.

BREWERY EQUIPMENT.—Lancaster, Pa.—See under Manufacturing Plants.

CEMENT PLANT EQUIPMENT.—Bath, Pa.—See under Manufacturing Plants.

CEMENT PLANT EQUIPMENT.—Louisville, Ky.—See under Manufacturing Plants.

BOILERS, ENGINE, ETC.—Canton, Mo.—See under Electric Light, Heat and Power.

FIRE ALARM SYSTEM.—Gallipolis, O.—Installation tof fire alarm system here considered.

BISCUIT FACTORY EQUIPMENT.—New York, N. Y.—See under Manufacturing Plants.

COAL DOCK.—Ashland, Wis.—C. Reiss Coal Co. may erect coal dock here this summer.

BREWERY STORE HOUSE EQUIPMENT.—Philadelphia, Pa.—See under Manufacturing Plants.

CANAL.—New Iberia, La.—Election is to be held Feb. 9 to vote on issuance of $90,000 canal bonds.

FIRE DEPARTMENT.—Kern City, Cal.—Town will vote on $10,000 bond issue for establishing fire department.

PUBLIC BATH HOUSE.—Cincinnati, O.—Board Public Service is to issue $22,000 of bonds for public bath house.

SMOKE STACK.—Austin, Tex.—Contract for new smoke stack at city power station let to Frank Heierman for $1,250.

INVERTED SYPHONS.—Canton, O.—F. E. Myers, Cy. Engr., writes us that he wants information regarding inverted syphons.

DOCK.—Milwaukee, Wis.—Contracts for dock at foot of Cherry St. let to A. F. Bues; work must be completed within 60 days.

FIRE BOAT, ETC.—Toledo, O.—Fire Chief Mayo has recommended purchase of fire boat, and also construction of 15 1,000-bbl. fire cisterns.

ARCHING CREEK.—Marion, Ind.—T. E. Petrie, Cy. Engr., has prepared report on arching of Boots Creek. Est. cost is about $150,000.

BOARD WALK.—Atlantic City, N. J.—Ventnor City Council, Harry S. Scull, Pres., has passed resolution for 8,300 ft. long board walk.

UNDERGROUND DRAINS.—Hagerstown, Md.—Council will ask legislative leave to issue $7,000 of bonds for building eight underground drains.

DRY DOCK.—Idaho.—Stated that Peter Johnson will build dry dock at Coeur d'Alene, Idaho, ways of which will extend 300 ft. into the lake.

STEAMER.—Portland, Ore.—Portland Shipbuilding Co. has contract for constructing steamer for the Snake River for the Lewiston Imnaha Route.

DITCH.—Bowling Green, O.—County Engineer is preparing his apportionment for William Hutson Joint Ditch. Ditch is 19 miles long.

DREDGING.—Duluth, Minn.—Bids are asked until Feb. 11 for dredging about 18,000 cu. yds. of material at Port Wing. Capt. Charles L. Potter, U. S. Engrs.

DITCH.—Connelton, Ind.—Bids are asked until Feb. 1 for constructing county ditch petitioned for by Geo. W. Hufnagel and others. A. P. Fenn, County Audr.

OIL FIELD WORK.—San Antonio, Tex.—Batson-Midway Oil Co. has been organized with $25,000 capital to operate in Texas oil fields. H. L. Benson is interested.

OIL FIELD WORK.—Sour Lake, Tex.—Earnest Oil Co. has been organized with $30,000 capital to operate in Texas oil fields. Henry W. Earnest is interested.

OIL STORAGE TANKS.—Point Richmond, Cal.—Stated that Pacific Coast Oil Co. intends to build 100 storage tanks on the land recently purchased near San Pablo.

LUMBER.—Rochester, N. Y.—Board of Contract has received bids for lumber for bridges and walks from Robert Dewart, $3,329 and from Otis Lumber Co., $3,362.

DREDGING.—Buffalo, N. Y.—Senator Henry W. Hill, of Buffalo, will introduce bill at coming session of the legislature to appropriate $75,000 to dredge Ohio Basin.

MACHINERY, BOILERS, ETC.—Alexandria, La.—Contract for machinery, boilers, pumps and piping for Insane Asylum for Negroes was let to Supply Co., New Orleans, La., for $5,600.

CULVERTS.—Duluth, Minn.—Resolution has been before council calling for construction of six culverts on Oneonta and Grand Aves., West Duluth, at a cost of about $8,000.

DITCH IMPROVEMENTS.—Brighton, Colo.—Several ditch companies in this part of the state are said to be preparing to spend about $4,000 during next three months for improvements.

STONE GATEWAY.—National Military Home, O.—Bids are asked until Feb. 23 for erection of stone gateway. George Keller, Arch., Hartford, Conn.; John W. Byron, Commissary Substance.

DITCHES.—Clarion, Ia.—Bids are reported asked until Feb. 1 for constructing about 20 miles of ditches, on basis of their being not less than 4 ft. wide at bottom. Silas A. Keeler, County Audr.

DITCH.—Gebo, Mont.—Bids are stated to be asked until Feb. 1 for construction Bartlett Ditch. Ditch is seven miles long and bids should be by the mile, successful bidder getting entire contract. George Gebo, Pres.

STEEL SHED.—New Orleans, La.—Bids are asked by Board of Commissioners of Port of New Orleans until Feb. 18 for the construction of the Girod St. shed. Hugh McCloskey, Pres. (Advertised in Engr. News.)

HOPPER CARS.—Winnipeg, Man.—Bids are asked until Feb. 9 for the supply of 25 gondola hopper cars, with a capacity of 800 cu. ft., and load of 80,000 lbs. C. J. Brown, Cy. Clk. (Advertised in Engr. News.)

CULVERT.—Boston, Mass.—Bids asked for culvert between dry docks at Navy Yark until Feb. 27. Mordecai T. Endicott, Chief of Bureau. Specifications on file in Engineering News office, N. Y.

NAVAL SUPPLIES.—Washington, D. C.—Bidding sheets and specifications for proposals for supplies for Portsmouth, N. H., and Boston, Mass., Navy Yards, are on file in Eng. News Office, N. Y. Bids asked until Feb. 9.

TUNNELS.—New York, N. Y.—East Side Rapid Transit Association of Manhattan and Bronx has held meeting to consider tunnel routes and method of obtaining legislation for them.

FERRY.—West Springfield, Mass.—County Commissioners have ordered that this town and city of Chicopee put in ferry, as temporary expedient, pending erection of proposed bridge.

WASHING MACHINES, ETC.—Baltimore, Md.—Bids are asked by Department of Supplies, 312 City Hall, until Jan. 30 for washing machines, one mangle and one sterilizer for Bureau of Charities. Frederick J. Shoyer, Dir.

CISTERNS.—San Diego, Cal.—Clerk County Supervisors is taking bids until Feb. 2 for two cisterns at County hospital, each 12 ft. in diameter and 14 ft. deep, to be built of brick.

GAS ENGINES.—Philadelphia, Pa.—The Westinghouse Machine Co. is stated to have been awarded contract to supply city with nine Westinghouse gas engines of an aggregate of 24,000 HP. to be used by the fire department.

SCOWS, ETC.—Cincinnati, Ohio.—Bids are asked until Feb. 12 for construction of two dump scows and one clam shell dredging bucket. Col. Ernest H. Ruffner, U. S. Engr.

BEACONS.—Biloxi, Miss.—Bid of Eskald & Castanera, Biloxi, of $2,519 reported as accepted by U. S. Light House Engineer, for building three lighted beacons to mark Gulf Port Ship Channel.

STEEL WIRE.—Washington, D. C.—Bids are asked by Ordnance Office, War Department, until Feb. 5 for furnishing 5,700 lbs. steel wire for wrapping guns. Brig Gen. Wm. Crozier, Ch. of Ordnance.

ROAD MACHINERY, ETC.—Jeffersonville, Ind.—Bids are asked until Feb. 2 for furnishing road machinery, etc., f. o. b. cars at Chicago, Ill. C. A. H. McCauley, Depot Quartermaster.

OIL PIPE LINE, ETC.—Henrietta, Tex.—Oil pipe line may be built from oil fields to this place. Erection of oil refinery and oil storage tanks also contemplated. W. W. Worsham is interested.

WHARF, DREDGING, ETC.—Ottawa, Ont.—Department Public Works is asking bids until Feb. 13 for constructing wharf, road approach, and dredging at Grand Bend, Lamberton County.

FILLING.—Chicago, Ill.—Bids are wanted by the South Park Commissioners, 57th St. and Cottage Grove Ave., until March 16 for furnishing the filling required for Grant Park, Chicago, approximately 3,000,000 cu. yds. Edward A. G. Shumway, Secy. (Advertised in Engr. News.)

FIRE ENGINE, ETC.—Galveston, Tex.—In his annual report of J. H. Gernand, Ch. Engr., Fire Dept., recommends purchasing of steam fire engine and combination hook and ladder wagon.

REPAIRING SHIP.—Vallejo, Cal.—Distilling ship "Iris," is to be repaired at local government navy yard. Approved estimates amount to $55,000 for construction and repair and $12,000 for steam engineering department.

DREDGING.—Norfolk, Va.—W. H. French Dredging Co., Berkeley, Va., has been awarded the contract for the dredging at docks of the Seaboard Wharf and Warehouse Co., Portsmouth, Va. Company also has contract to fill up one of the docks.

GRADE CROSSING ABOLISHMENT.—North Adams, Mass.—Hoosac Valley Street Ry. Co. has petitioned for abolishment of grade crossing at Braytonville. Est. cost is $60,000, and plans for it are in hands of H. S. Durkee, Engr., for road.

BATTLESHIPS.—Washington, D. C.—Navy Department is stated to have decided to award a contract for construction of two 13,000-ton battleships, Idaho and the Mississippi, bids for which were opened Jan. 15, to Cramp Shipbuilding Co., Philadelphia, at a total of $5,999,000.

TUNNEL TILING.—Boston, Mass.—Bids for tile work for underground station of East Boston Tunnel in Court St., were received Jan. 19 as follows: Boston Tile & Mantel Co., $5,721, nine months; Jones & Meehan, $7,441, six weeks.

LEVEE.—Sullivan, Ind.—Contract for constructing 11-mile levee for Island Levee Association has been let to Ben Crowder, R. L. Bailey and John Ersinger of this city for $73,000. Contract was first awarded to other parties, but they forfeited their bonds.

POWER PLANT.—Washington, D. C.—Robert Shearer & Co., Los Angeles, Cal., is reported to be low bidder for construction of preliminary power plant at Tonto dam basin in Arizona, bids for which were opened by Interior Department Jan. 7.

REMOVING BOULDERS.—Detroit, Mich.—Specifications are on file at office Engineering News, 220 Broadway, New York, for removing boulders, excavating, etc., in lower Detroit, Mich. Bids are asked until Feb. 25, as was advertised in Engineering News.

EXCAVATING MACHINERY.—Philadelphia, Pa.—H. M. B. Bary, 613 Marines' & Merchants' Bldg., Philadelphia, writes us that he wants the names and addresses of firms manufacturing excavating machinery for sandy soil, other than steam shovels. Particulars are wanted at once.

PIER.—Baltimore, Md.—Contract for woodwork for 100 × 800-ft. pier for Western Maryland R. R., at Wynan Cove has been let to J. J. Walsh & Son, for $12,000. Pile work and iron superstructure will be built by railroad company.

DITCHES.—La Grange, Ind.—Bids are asked by County Auditor until Jan. 30 for construction of H. C. Schrock ditch, and until Feb. 2 for construction of D. H. Page ditch. This ditch is 28,100 ft. long and contains about 97,567 cu. yds. V. D. Weaver, County Audr.

TUNNEL.—Knoxville, Tenn.—Contract for building the Clear Fork tunnel on the Knoxville, La Follette & Jellico Ry. has been let to Callahan Construction Co., Knoxville. Tunnel will cost about $200,000 and work is to be begun at once.

LEVEE WORK.—Ottumwa, Ia.—South Ottumwa Improvement Association has recommended to Council that levee to protect South Side from high water be raised, that its sides be protected by rip rap, and that wing dams be constructed. T. H. Pickler is Mayor.

PORTLAND CEMENT.—Washington, D. C.—Bids are asked until Feb. 29 for furnishing 150,000 bbls. first class Portland cement, delivered at dam side near Tonto Creek, Ariz. E. A. Hitchcock, Secy. Interior. (See advertising columns.)

BOILER.—Perth Amboy, N. J.—Bids are asked until Feb. 17 for furnishing and installing one 150-HP. horizontal tubular boiler with dome, to be built for a working pressure of 125 lbs. per sq. inch. Joseph G. Burns, Supt. Bd. Water Comrs. (Advertised in Engr. News.)

PIERS.—New York, N. Y.—The Dept. of Docks and Ferries, Maurice Featherson, Comr., is preparing plans for nine new piers fronting on North River from Gansevoort Market to 30th St. Will be wood structures on pile foundations 60 × 800 ft.

DEEP SEA CABLE.—Washington, D. C.—Bids are asked by Signal Office, War Department, until Feb. 1 for furnishing about 17 miles of single conductor, deep sea cable, Alaska type. Brig. Gen. A. W. Greely, Ch. Signal Officer, U. S. A.

DREDGING.—Detroit, Mich.—Bids are asked until March 9 for dredging under continuing contracts, for improving Middle and West Neebish Channels, St. Mary's River, Mich., at Hay Lake and Mud Lake. Major W. H. Bixby, U. S. Engrs.

AQUATIC GROUND.—Princeton, N. J.—John M. McKenzie, C. E., Yaleville, Conn., has been engaged to supervise laying out and construction of aquatic sporting grounds for Princeton University, for which Andrew Carnegie gave $300,000.

DAM, LEVEE.—Waco, Tex.—Council is said to be considering building dam across Brazos River to afford water power for local industries. Construction of levee in East Waco to prevent flood damage from Brazos River also reported under consideration.

STEEL PROJECTILES.—Washington, D. C.—Bids are asked by Ordnance Office, War Department, until Feb. 10 for furnishing more or less, 1,300 58-lb. 5-in. A. P. capped shell; 1,600 106-lb. 6-in. A. P. capped shell; 750 106-lb. 6-in. A. P. capped shot. Brig. Gen. Wm. Crozier, Ch. of Ordnance.

DAM.—Harrisburg, Pa.—Board Public Works is said to be considering placing of dam in Susquehanna River at lower end of city, for covering up flats that are exposed at low water. Plans are also being considered for the improvement of surface drainage of the Paxton Creek Valley.

CHIMNEY.—Washington, D. C.—Bids are asked by Bureau Yards and Docks until Feb. 20 for erection of circular brick chimney 200 ft. high at Navy Yard, Washington. M. T. Endicott, Ch. Bureau. Specifications for above work are on file at office of Engineering News, 220 Broadway, New York.

DITCH WORK.—Florence, Colo.—Surveys are under way laying out the line for proposed ditch of the Colorado Fuel & Iron Co., between the steel works at Pueblo and the Royal Gorge. The est. cost of work is between $750,000 and $1,000,000, and if present plans are carried out several tunnels will have to be driven.

FIRE ENGINES, ETC.—St. Paul, Minn.—A. J. Schweizer, Fire Comr., has asked that appropriation for fire department be increased by $35,000. The following improvements are desired: Engine company for West Side, steamer for the station at Ashland and Victoria,

hook and ladder company for the house at Edmund and Marion, engine company for house at Payne and York, a new house and company for a station to be located at Dale and University.

LUMBER.—Newark, N. J.—Bids are asked by Joint Bridge Committee, at Bridge St., bridge office, Jan. 28, for furnishing 150,000 ft. B. M. merchantable maple plank 3 x 8 in. to 14" x 9'6" long, cut square edge; 7,500 ft. be "running plank"; 50,000 ft. B. M. merchantable yellow pine plank, 3" x 12" x 24', cut square edge. Frank E. Ward, Chn.

TUNNEL.—Pittsburg, Pa.—Pittsburg & Allegheny Subway Tunnel Co., will, it is said, at once ask franchises for right of way beneath certain streets. Company has $500,000 capital, and its plans call for the base of the tunnel 22 ft. below the surface, wide enough for two street car tracks, a 10-ft. roadway and a 6½ft. walk. Robert J. Henderson is Pres. and Henry W. Hespenheide, Secy.

STEEL BELL TOWER.—Bradford, Pa.—Edw. C. Charlton, Cy. Clk., writes us that following bids were received Jan. 18 for steel bell tower; advertised Engineering News; contract will be let Feb. 2: New Dover Iron Works, Cleveland, O., $1,495; Champion Iron Co., Kenton, O., $1,525; Belmont Iron Works, Philadelphia, $1,473; Climax Road Machine Co., Marathon, N. Y., $1,325; Penn. Building Co., Beaver Falls, Pa., $1,290; Berlin Construction Co., Berlin, Conn., $1,990; Brackett Bridge Co., Cincinnati, O., $1,480; W. W. Lindsay & Co., Philadelphia, $1,853.

MINING.—Redding Gold & Copper Co., Redding, Cal., is stated to have filed $100,000 mortgage with Central Trust Co., San Francisco, for building 100-ton smelter, and 1,000-HP. electric plant, eight miles from this place.——Kingman, Ariz., reports state that owners of Midnight Mine in Chloride Mining District, propose to erect concentrating plant.——Prescott, Ariz., reports state that Copper Mountain Mining Co., reorganized as Bradshaw Mountain Copper Mining & Smelting Co., will at once commence development and construction work, which will entail construction of a tramway, installation of large electric power plant and probable erection of a smelter on the Agua Fria.——Nevada.—Keystone Mining Co., Los Angeles, Cal., Carl F. Schader, Gen. Mgr., is reported to be considering the entire remodeling of the company's plant, which involves a change to electrical equipment throughout.

U. S. POSSESSIONS AND CUBA.

ADVISE TO EXPORTERS.—Philippines.—The following article, taken from the Manila "Daily Bulletin," may be of interest to exporters of this country to the Philippine Islands:

Catalogues should be in Spanish, and should always give the telegraphic addresses and codes employed. Prices should be given: Confidential discount sheets should give the prices current; the importer then can judge prices from his own commercial journals. Weights and dimensions of articles are of great value in a catalogue. The reputation of a house often depends upon the manner of packing as much as on the merchandise itself. Goods for Manila should be be packed with special care. The port is unprotected and the sea is often very rough, making unloading at such times impossible. Transfer is made by natives in smal boats from a point 2 miles distant. These boats are tossed about by the slightest agitation of the water. Documents ought to accompany the merchandise. Firms should choose for their representatives persons of great experience. The customs officials of Manila are guided by fixed laws, from which they do not deviate. The Philippine tariff law in regard to the different classifications should be carefully studied, and persons should draw up their documents in accordance therewith. Manufacturers should not place small samples in their shipments unless they mention them as such in their invoices, otherwise they will be compelled to pay duty thereon, and, perhaps, an additional amount. Every package should bear the name of its destination and its particular marks, and should also show gross and net weight in pounds and kilograms. Invoices should be prepared in regular form. Some important rules of the Philippine customs service follow. Each package should be specified in the invoice, with marks and numbers. The contents of each package should be indicated in detail, in regard to price and destination; Packages containing goods of different classification should be so entered; The weight declared should include the wrapper, since the wrapper pays the same duty as its contents; As the wrapper is destroyed, the invoice should show net and gross weight; invoices should always be made in triplicate, two for the customs and the third for the consignee. If bills of lading are not payable at sight, a second but non-negotiable bill should follow, in order to give the consignee information as to freight It is preferable to insure in companies having legal representatives in Manila.

MEXICO.

SUGAR MILL.—Cuernavaca.—Jose Cuevas will erect a sugar mill on his plantation in this state.

STREET PAVING.—Queretaro.—More paving is to be done here. The Governor can give information.

PAPER MILL.—Guaymas.—Antonio Orfilio, Tucson, Ariz., is at the head of a project to establish a paper mill.

BANK BUILDING.—Hermosillo.—The National Bank of Mexico will erect handsome building here, and establish a branch bank.

RAILWAY.—Concession granted the Tuxla & Gulf Ry. Co. for the construction of a railway from the Bay of Santa Compan to Santiago Tuxla, about 20 miles.

COAL MINING.—Puebla.—The J. B. Foss Coal Co., of Virginia, is preparing to develop its coal properties recently discovered in this state. Machinery will be purchased.

TANNERY AND SHOE FACTORY.—Culiacan.—R. E. March is considering the establishment of a tannery and shoe factory. Mr. March is now in Culiacan. His home address is San Antonio, Tex.

RAILROAD.—Cerro Almaloya, Chihuahua.—A rope tram or a narrow gage railroad will be built to connect the Cigarro mine with the railroad at this place. C. L. Graves, Chihuahua, can give information.

SUGAR MILL.—The Boston Plantation Co., whose property is in the state of Chiapas, is considering the construction of a sugar mill. Capt. George Hunter, Mgr., has been called to Boston, to confer with the directors in regard to the project.

MACHINERY.—El Rosario Mining Co. has denounced water rights which it will develop to run machinery for mills, etc. Considerable machinery for plant will be required. Address Compania El Rosario, Penoles, Estado de Oaxaca.

LUMBER MILL.—Vera Cruz.—M. S. Williams, lumber manufacturer of Cardwell, Mo., has been investigating the situation in this part of Mexico with the view of acquiring large tracts of timber land and establishing lumber mills thereon.

WATER POWER.—Edward T. Le Claire has applied for a concession to divert 15 cubic meters of water per second, from the Rio Grande River, state of Chihuahua, to be used for motive power. Arturo Paz, of Mexico City, is attorney for Mr. Le Claire.

ROAD.—Parral.—Engineer L. W. Knotts has completed survey for a wagon road that is to be built from the terminus of the Parral & Durango Railroad to the Guadalupe y Calve mining district. Est. cost, $60,000. A telephone line will also be built.

FOUNDRY.—Estimates and plans for the foundry to be erected in Hornos, near Viesca, Coahuila, referred to before in these columns, have been completed and approved. Total cost will be over $300,000. Senor Claudio J. Martinez will soon purchase the necessary machinery.

DRAINAGE.—City of Mexico.—Ignacio de la Torre, of this city, has applied to Mexican government for concession to establish an extensive system of drainage on his hacienda situated near here. He proposes to drain a large lake by turning the water into the Lerma River.

OIL REFINERY.—Ebano, Tamaulipas.—The new refinery of the Mexican Petroleum Co., at this place, will have a daily capacity of 800 barrels of oil. Other extensive improvements are contemplated. It will soon complete a railroad six miles long between the refinery and the oil fields.

LUMBER MILLS, ETC.—Government has granted concession to Policarpo Valenzuela for the use of the mahogany and other timber on about 600,000 acres of land in the state of Tabasco. It is proposed to erect and operate lumber mills on the tract. Senor Valenzuela is located at either City of Mexico or San Juan Bautisto.

WAGON WORKS.—City of Mexico.—C. P. Kiel, of Oakland, Cal., Pres. Kiel & Evans Co., manufacturers of vehicles, is here investigating the situation with view of establishing vehicle manufacturing plant in this city. He says that he and his associates can command $1,000,000 to be invested in the enterprise; that Mexico is a good field for that business.

OIL DEVELOPMENT.—La Paz, Lower California.—The Guarantee Investment Land & Development Co., of Sonora, with principal office in the City of Mexico, is prospecting for oil in Lower California. Charles J. Kleeman, Vice-Pres., City of Mexico, can give information. This company is also investigating the coal fields of the state of Sonora, with the view of their development.

FACTORIES.—Merida, Yucatan.—Manuel and Juan Arrigunaga, of this city, will considerably increase the capacity of the factory for the manufacture of macaroni and other flour pastes.——The Industrial Cotton & Furniture Company, Monterey, is reported about to let contracts for wood-working machinery to be used in reconstruction of its furniture factory recently damaged by fire.

LUMBER MILLS.—Coatzacoalcos.—The American syndicate, represented by H. H. Ferdman, of St. Louis, Mo., which has acquired a large tract of timber land on the isthmus of Tehauntepec, will, it is said, soon begin the construction of a number of lumber mills thereon.——City of Mexico.—Reported that Frank Sweeney, Astoria, Ore., will establish lumber mills in southern Mexico.

FACTORY.—City of Mexico.—The Buen Tono Cigarette Co. will erect a large factory building here for the purpose of enlarging its cigarette manufacturing plant.——The General Manifold Co., Franklin, Pa., contemplates establishing a factory in this city. Lou D. Sweet, of Denver, Colo., representing the company, is here investigating the situation with that end in view.

IRRIGATION AND POWER.—Col. Fernando Gonzales has applied for a concession to utilize the waters of the Amasusac River for irrigation. Power dam will be constructed where the waters issue from the caves of Cacahuamilpa. Lic. Gumersindo Enriquez, City of Mexico, is attorney for Col. Gonzales.——An irrigation plant, to cost about $150,000, is to be constructed by the Walthalla Colonization Co. Address the company at Naranja, Estado de Jalisco.

LIGHT AND POWER PLANTS.—Monclova, Coahuila.—Contract for installing new electric and power plant here let to Victor M. Braschi & Bro., of the City of Mexico. Cost about $40,000. Jose M. Tejada, of Monclova, is Pres. of company.——City of Mexico.—City council has appropriated $348,000 for providing the city with electric lights during the year 1904.——La Piedad, Michoacan.—Jesus Avalos will soon commence construction of large electric power plant on the Lerma River, near here. He proposes to provide electric lights and power for several towns in this section and to furnish power for the operation of manufacturing concerns.

LUMBER MILLS.—City of Mexico.—It is announced by J. A. Cummings, of Cummings & Edwards, this city, that a Minnesota lumber company contemplates acquiring tracts of hardwood timber lands in Mexico and will erect a number of lumber mills thereon. Proposed mills will have an aggregate capacity of 250,000 ft. of lumber daily. Box-making factories and other woodworking plants will be established by the company.——Merida, Yucatan.—Benjamin Barrios, who has Government Concession to use the timber on 1,560,000 acres of land in this state, will erect lumber mills on the property.——Coatzacoalcos.—George E. Watson, of Duluth, Minn., contemplates erecting several large lumber mills and a box factory on Isthmus of Tehuantepec.

SUGAR MILLS.—Coatzacoalcos.—The Isthmus Plantation Co., which owns land on the Isthmus of Tehuantepec, contemplate extensive improvement. Sugar mill machinery may be required. Ex-Governor Edward Schofield, of Milwaukee, Wis., is interested.——City of Mexico.—Fred. E. Avery, of St. Louis, Mo., and associates, propose to develop a large coffee and sugar plantation on the Isthmus of Tehuantepec. If plans are carried out a sugar mill will be erected and other improvements made.——Pueblo, Mex.—La Providencia flour mill at this place is to be remodeled and its capacity increased to 125 barrels of flour daily. New cleaning machinery will also be installed.——Vera Cruz.—The Vera Cruz Developing Co. will erect a sugar mill on its Esmeralda plantation, this state; will also construct a number of plantation buildings. John A. Hay, of Columbus, O., who is interested in the company, has arrived at the plantation to superintend the construction work.

RAILWAYS.—Mexico.—Track laying has commenced on the Matamoras branch of the National R. R. of Mexico, to run from Monterey to San Miguel. Nearly 50 miles of grade has been completed. Capt. William Scott, Monterey, has the contract for constructing the road.——Linares, Tamaulipas.—Surveys for proposed railroad to be built from this place to San Jose by the San Carlos Copper Co. has been submitted to the Government for approval. Construction work will soon start. Under terms of concession, road may be extended to Sot[illegible] Marina on the Gulf of Mexico.——City of Mexico.—[illegible] Mexico.—Government has granted concession to the [illegible] topec y Huajuapam de Leon Ry. Co. to build a line fr[illegible] an Marcos to Rosendo Marquez, on Mexican Southern [illegible] Company has also a concession for its line from [illegible] Com. City of Mexico.——Altata, state of Sinaloa.—[illegible] to the wealthy resident of this state, has organized [illegible] imada, a to build a road from this port to mining dist[illegible] company It is announced that construction contracts [illegible] of Topia. soon as survey is completed. [illegible] be let as

MINING NOTES.—Monterey.—Reported t[illegible] La Cruz Plantation Co., which owns and operates [illegible] plantation near La Cruz, will expend $50,00[illegible] chasing new machinery for harvesting its c[illegible] and for other improvements. S. H. Miller is Secy. [illegible] It is announced that the Consolidated Gold [illegible] Fields of South Africa will install new machinery a[illegible] mining property in this district.——Oaxaca.—The San[illegible] Mining Co. will install new machinery and make ot[illegible] improvements at their mining properties in this distric[illegible] —El Oro.—William McLachlan will install machinery [illegible] working the tailings of the Carmen mine in this distr[illegible] —Magdalena, Sonora.—A smelter is to be erected he[illegible] Thompson & Gilliam are interested.——City of Mex[illegible] William Selover, Mgr. Occidental Smelting Co., Seattle, Wash., is investigating the situation in Mexico with [illegible] view of establishing an independent smelting plant a[illegible] some point in this country.——Ahuechuetes, Hidalgo.—J. [illegible] Erskine will establish a stamp mill at his mines near here.——Chihuahua.—Stated here that J. B. Haggin and associates, of California, have had plans prepared for new smelting plant in this state, to cost about $3,000,000 gold. It is stated that the Hearst estate, which owns a number of rich mines in Mexico, is interested.——Pachuca, Hidalgo.—P. J. Howard and Samuel Farrell will install considerable new machinery at their mine in this state.——Monterey.—The Monterey Iron Steel Co. is preparing to increase the output of its coal mines. New machinery will be installed and other improvements made. Aerial cables, railways, etc., at its Cinco de Mayo iron mines have been completed.——Tejupilco.—G. A. Evans, of Telluride, Colo., has been investigating the mining situation in this district with the view of erecting a customs smelter. He says that he has plans for proposed new plant to cost about $100,000 gold.——Ayoguineo.—The Mexican-Canadian Mining Co. will install machinery at its mine, situated near here. A short ore railroad will also be built.

FOREIGN CONTRACTS—EXPORT NEWS.

FARM IMPLEMENTS.—Austria.—Fred. W. Hossfeld, U. S. Consul at Trieste, reports that while owing to cheap labor and small farms American machinery does not find a ready sale here, farm and garden tools could be successfully introduced.

RAILWAY.—Australia.—We are informed that a railway scheme has been brought up for the construction of a line from Kalgoorlie in Western Australia to Port Augusta in South Australia. Preliminary surveys are under way, but nothing definite is determined as yet.

STEAM DREDGE AND TOWING BOATS.—Honduras, C. Am.—F. S. Whitney, of Truxillo, Honduras, via New Orleans, writes us that he is in the market for a steam dredge and two steam towing boats to be used on a short canal to be opened in Honduras within a few months. Mr. Whitney requests catalogue, price lists and illustrations at once from manufacturers.

RAILWAY.—Guatemala.—Contract between syndicate headed by Sir Wm. C. Van Horne, Pres. Canadian Pacific R. R., and Guatemalan Government is now in the hands of President Manuel Estrada Cabretia for his signature. Frank Martin, a New York coffee grower of Guatemala, has said that work will begin on the construction of the road, which will connect the Atlantic and Pacific coasts, as soon as the signature is secured.

ELECTRIC TRAMWAYS, Calais, France.—U. S. Consul J. B. Miller reports that the plans for the proposed electric line in Calais has received a setback through the death of the contractor. This system will comprise three lines, aggregating 16 miles of track, and will cost about $600,000. The contractor's heirs are now trying to sell his rights, and an opportunity may exist here for an American company. Construction was to start this spring.

ELECTRIC TRACTION.—Italy.—Richard Guenther, U. S. Consul-General at Frankfort-on-Main, Germany, reports that electric propulsion by means of accumulators on the Italian Meridional route has not proved a success, and the management of the road has therefore been authorized to discontinue this electric system on certain lines and to replace it by steam.——A meeting of interested parties was held in November at the instance of the chambers of commerce of Milan, Lecco, and Chiavenna, which resolved to request the Government to immediately establish the trolley system upon the lines of Lecco to Milan.——The Mediterranean R. R., Milan, contemplates the extension of the electric system with a third rail over the lines Verese-Laveno-Gallarat-Sesto Calende-Arona.

SPAIN.—Julius S. Levy, U. S. Consul General, Barcelona, Spain, sends us the following lines regarding the market in Spain for American machinery. In a nutshell, there are five difficulties to be overcome. First, the great duty levied on American goods, as compared with the duties from other countries; second, heavy transportation charges; third, the tenacity with which American manufacturers adhere to demanding cash terms of perfectly good customers; fourth, the disinclination of Americans to examine the financial standing of probable customers as the Germans do; fifth, the refusal of American manufacturers to bear some of the initial cost in exploiting American machinery. Spain cannot be worked through European agents located at London and Hamburg, or in the way that France and Germany are. There is no question about the market in Spain if American firms will only exploit their own wares, where they are unknown, and not depend upon agents to do so. W. W. Ewing, an American engineer, is just completing a large plant in which about $200,000 worth of American machinery has been installed. Morgan, Elliott & Co., and the Santa Marina Co., of Barcelona, are interested in importing machinery.

CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

VALVES, HYDRANTS, PIPES, ETC.—Minneapolis, Minn.—We are informed that the following bids were received Jan. 8, the following materials for water works construction; Ellis R. Dutton, Asst. Cy. Engr.: (1) Valves, 64 6-in.; 3 8-in.; 4 12-in.; 16-in.; (2) hydrants, with frost jackets; without frost jackets; frost jackets alone; (3) special castings, 17·5 tons; (4) cast iron pipe, 672 tons 6-in.; 45 tons 8-in.; 47 tons, 12-in.; 51 tons, 16-in.; (5) heaters; Webster 300 HP.; Cochrane; Stilwall and Cookston; (6) rubber hose, 400 ft. 2½-in.; all bidders local except where otherwise stated: Coffin Valve Co., Boston,

Information concerning contracts to be let or supplies to be furnished, and corrections of errors and omissions in published items, are invited.

Mass., (1) 8-in. $18 each; 12-in.; $34; 16-in., $65; (2) without frost jackets, $33 each; frost jackets, $3.50 each. C. W. Thomas, Detroit, Mich., (1) 6-in., $10.75; (2) $16; (3) $... Magruth Foundry Co., St. Louis, Mo., (3) $50 per ton f. o. b. Northwestern Foundry Co., (2) frost jackets, $... (3) $50 per ton f. o. b.; $54 delivered. National Car Wheel Co., Sayre, Pa., (1) 8-in., $18; 12-in., $33; 16-in., $... (2) with frost jackets, $36; without, $31.50. Ludlow Valve Co., Chicago, (1) 6-in., $11.20 each; 8-in., $1...80; 12-in., $30.40; 16-in., $57.20. Jas. B. Clow & Sons, Chicago, (1) 6-in., $12.00; 8-in., $19.50; 12-in., $35.50; (2) $25.70 per ton. R. D. Wood & Co., Philadelphia, (1) 6-in., $12; 8-in., $18; 12-in., $33; 16-in., $73; (2) with frost jackets, $39.50; without, $34; frost jackets only, $... each. U. S. Cast Iron Pipe & Foundry Co., Chicago, (1) $25.75 per ton. Gilmore Rollins Co., (1) 6-in., $5.50; 8-in., $17.50; 12-in., $32.50; (2) with frost jackets, $35; ...; without, $29. Andrews Heating Co., (5) Webster, ... Cookston, $673. T. M. Maguire, (5) Webster, $528; Sc...wall, $488. Plumbing & Steamfitting Co., (5) Webster, $414.48; Cochrane, $460.28. Pand Hasey Co., (5) Webster, $485. J. N. Smith Co., (5) Cochrane, $586. Townstead Heating Co., (5) Webster, $587. W. S. Mott Co., (6) 80 cts.; "Test," $1; Plant Rubber Co., (6) "River Black," 95 cts. Chicago Fire Hose Co., Chicago, (6) "Acorn," 90 cts.; "Reliance," $1. B. F. Goodrich Co., Akron, O., (6) "White Anchor," $1.10.

BRICK PAVING.—Columbus, Ind.—Wm. H. Rights, Cy. Engr., informs us that the following bids were received Jan. 7 for furnishing the material for brick paving, advertised in Engineering News; (1) is for paving on Washington St., (2) for work on 5th St.; no award has been made, but H. C. Finley, Hoopeston, Ill., made lowest bid on Washington st., at $1.66 per sq yd. with Culver block; and Foulkes-Forbes Co., Terre Haute, Ind., lowest on 5th St., at $1.57 per sq. yd.:

Bids Received at Columbus, Ind., Jan. 7, 1904, for Furnishing the Material for Paving Two Streets.

Bidders.	Indiana p'v'g brick, Brazil, Ind.		Poston block, Crawfordsville, Ind.		Terre Haute (Ind.), brick.		Culver block, Veedersb'g, Ind.		Metropolitan block, Canton, O.		Hocking Valley, Nelsonville, O.		Townsend block, Zanesville, O.	
	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.
Daniel Foley, Indianapolis, Ind.	$2.35	$2.29	$2.25	$2.05	$2.30	$2.20	$2.20	$2.10	$2.45	$2.35	....	....	....	....
James B. John, Tipton, Ind.	2.55	2.45	2.46	2.36	2.55	2.45	2.41	2.31	2.76	2.66	$2.67	$2.57	$2.54	$2.44
M. L. Bowlin, Tipton, Ind.	2.52	2.42	2.43	2.33	2.53	3.43	2.38	2.28	2.73	2.66	2.64	2.54	2.51	2.42
W. W. Hatch & Sons, Goshen, Ind.	....	....	2.53	2.23	....	....	....	....	....	....	....	....	....	....
Nolan & Slattery, Crawfordsville.	2.00	1.86	1.98	1.84	....	....	....	....	....	....	2.05	1.88	2.00	1.85
Fred. Hoffman, Crawfordsville	2.23	1.90	....	....	....	....	....	....	....	....	....	....	....	....
Frank DeHority, Elwood, Ind.	2.62	2.30	....	....	....	....	2.50	2.18	2.74	2.42	2.70	2.30	2.62	2.30
G. M. Cheney, Indianapolis, Ind.	2.55	2.38	....	....	2.55	2.38	2.45	2.28	....	....	....	....	2.55	2.38
Vaughn & Cooper, Greenfield, Ind.	2.46	1.76	2.46	1.76	2.50	1.77	....	....	2.56	1.95	....	....	2.56	1.81
A. G. Pugh, Columbus, O.	....	....	....	....	....	....	....	....	2.11	2.11	2.035	2.035	1.965	1.97
John Finan, Jr., Elwood, Ind.	2.65	2.35	....	....	....	....	2.52	2.19	2.74	2.42	2.72	2.40	2.63	2.30
Call & Carlton, Elwood, Ind.	2.22	2.17	....	....	....	....	....	....	....	....	2.24	2.20	2.27	2.22
S. Dingle, Newcastle, Ind.	2.18	2.03	2.14	1.97	2.18	2.03	....	....	....	....	....	....	2.08	1.93
J. A. Foster & Co., Attica, Ind.	1.94	1.76	1.87	1.73	1.96	1.85	....	....	2.06	1.92	2.02	1.86	1.94	1.80
Marion Co. Constn Co., Ind'pls.	2.30	2.07	....	....	2.24	2.07	2.19	1.99	....	....	....	....	....	....
H. C. Finley, Hoopeston, Ill.	1.75	1.74	1.71	1.70	1.82	1.84	1.66	1.65	1.89	1.88	1.86	1.85	1.79	1.78
Foulkes-Forbes Co., Terre Haute.	1.78	1.63	1.70	1.60	1.80	1.65	1.67	1.57	1.90	1.80	1.85	1.75	1.79	1.69

Hatch & Sons submitted bids at $2.44 and $2.14 for Clinton brick, Clinton, Ind., and Western pavers, of Danville, Ill., respectively in Washington and 5th Sts., and $2.53 and $2.33 for Peeples block, Portsmouth, O. Foulkes-Forbes Co. submitted bids at $1.80 and $1.70 for Clinton brick and $1.82 and $1.72, respectively for Western pavers, for the two streets. Guarantee periods 7 years; guarantee fund is 10% of contract price, which is reserved for 7 years and on which 5% interest is allowed. In addition there is a guarantee bond of 35% of contract price, which runs, of course, 7 years. Washington St. is 1,904 ft. long, 41½ ft. wide (i.e., to be paved), and has double street car tracks, with 6 ins. extra of Portland gravel concrete under ties; 5th St. is 2,112 ft. lang, paved width as 27½ ft., and has no street railway, except 60-ft. crossing street, 4-in. brick wearing coat. Foundation is 6 ins. of Portland-sand-gravel-concrete mixture 1:3:6, and 1¾-in. sand cushion. Cement curb and gutter is all in. Gravel costs 50 cts. delivered on street; sand, same plus extra cost of screenings. Natural mixture of gravel and sand may be used in proportion of 1 of Portland to 8 of gravel and sand.

WATER PIPE.—New London, Conn.—R. D. Wood & Co., of Philadelphia, have been awarded the contract at $23.70 a ton for 225 tons of 16 and 12-in. c.-i. water pipe. During the summer it is the intention of the department to complete the relaying of the old cement lined pipe of which little remains in use. If the connections are made so that the new pumping station can supply both high pressure services that will necessitate the laying of a long stretch of new pipe.

DREDGING.—Charlotte, Mich.—We are informed that the following bids were recived Jan. 21, 1904, for about 345,000 yds. of dredging in Vemontville: Frank Brunbaugh, Elkhart, Ind., $13.70 per rod; C. H. Sternberg, Winance, Ind., $13.73 per rod; E. D. Barr, Pollerville, Mich., $13.695; there are 1781.04 rods in the work.

BRICK SEWERS.—Clinton, Ia.—We are informed that the following bids were received Jan. 12, 1904, for sewers in main sewer district, No. 12, in Pearl St.; about a quarter of the trench is in rock and the average cut is 10 ft.; the sewers are 1-ring, and laid in Portland cement; Geo. M. King bid $1.06½ each on 56 6-in. slants; Iowa Engineering Co., Consult. Engr.; Chas. P. Chase, Cy. Engr.:

Bids Received at Clintop, Ia., Jan. 12, 1904, for Sewers in Pearl St., Sewer Dist. No. 12.

Bidder.	Rock excavation, 567 yds.	Concrete, 84 cu. ft.	Manholes, 10 each.	Catch-basins, each.	Lumber per M. ft.	Sewers: 10-in. c.-i. pipe, 100 ft.	Sewers: 24x36-in., 1,720 ft.	Sewers: 22x33-in., 700 ft.	Sewers: Catch-basin conns., 530 ft.	Total.
R. E. Jackson, Cedar Rapids, Ia.	$2.75	$100.00	$35.00	$20.00	$21.00	$1.40	$1.95	$1.85	$0.60	$7,536
Sheppard & Hanrahan, Des Moines, Ia.	3.00	40.00	32.00	32.00	21.00	.90	1.75	1.50	.70	7,254
W. D. Lovell, Des Moines, Ia.	2.75	46.00	52.00	26.50	21.00	1.86	2.02	1.75	.81	7,996
Thomas Carey, Clinton, Ia.	2.75	30.00	45.00	18.00	21.00	2.00	2.05	1.85	.50	7,703
Geo. M. King, Des Moines (accepted)	1.827	40.56	29.12	28.55	21.00	1.75	1.826	1.764	.60	6,895
Engineer's estimate (C. P. Chase, Clinton)	2.45	45.00	34.00	21.00	21.00	1.61	2.00	1.75	.58	7,359

COUNTERWEIGHTS.—Cincinnati, O.—The following bids were received Jan. 8, 1904, by the water-works commissioners for placing counterweights to the amount of 4,200 tons on the caisson deck at the Eastern Pumping Station to keep it stationary: Ross-Mehan Foundry Co., Chattanooga, $20 a ton; United Engineering & Foundry Co., Pittsburg, $22.10; W. J. Gawne Co., Cleveland, $22.20; J. H. Dimmick & Co., Birmingham, $24.30; Marshall Foundry Co., Pittsburg, $20.85; Bollman-Wilson Co. Cincinnati, $17.35; U. S. Cast Iron Pipe & Foundry Co., Cincinnati, $25; Eureka Foundry Co., Allegheny, Pa., $18.15; Buffalo Foundry Co., Buffalo, N. Y., $19.50.

LAYING WATER MAIN.—St. Paul, Minn.—The water board received the following bids Jan. 11, 1904, for laying water mains in West 7th St.: P. H. Thornton, $1.39 per lin. ft. (accepted); Allen Black Co., $1.60; Fielding & Shepley, $2; James Forrestal Co., $2.14; P. J. Ryan, $2.37; Chris. Johnson, $3.04; P. Doherty, $3.90; W. I. Gray, $4.40. The new water mains will be laid under that portion of West 7th St. to be macadamized next summer, from Tuscarora St. to the Fort Snelling bridge.

GRANOLITHIC WALKS, ETC.—Port Townsend, Wash.—Capt. Geo. H. Penrose, Q. M., U.S.A., writes us that the following bids were received Jan. 13, 1904, for granolithic walks, etc., at Forts Worden and Casey, Wash., and for cisterns at Fort Casey; (1) 750 yds. granolithic walks per sq. yd.; (2) 52 concrete steps, each; (3) 11 connecting walks of 20 ft., each; (4) 769 yds. garnolithic walks, (5) 35 concrete steps:

Granolithic Walks, Etc.

	Ft. Worden 1.	Ft. Worden 2.	Ft. Worden 3.	Ft. Casey 4.	Ft. Casey 5.	Ft. Casey 3.
D. M. McInnis, Ft. Flagler	$1.40	$1.40	$0.36	....	....	....
H. J. McInnis, Ft. Casey	....	....	....	$1.35	$1.50	$0.38
S. McGee, Pt., Townsend	2.00[1]	.65	20.00*	....	....	....
T. Ryan & Co., Seattle	1,540[2]	....	2.00	1,505[2]	....	2.00
Jas. Lee, Tacoma	1.60	5.00	1.00	1.60	5.00	1.00
Burrell Con. Co., Seattle	....	....	....	2.05	2.00[1]	.40

*Lump bid for connecting walks. [1]Bid per ft. [2]Includes concrete steps.

Cisterns.

	Total.	To complete
H. J. McInnis	$4,150	4 months.
Burrell Construction Co.	4,450	60 days.
Bromley & Wells	14,592	.....
T. Ryan & Co.	5,243	40 days.
James Lee	4,390	3 months.

MACADAM PAVING.—Crookstoon, Minn.—W. H. Graves, Cy. Clk., writes us that the following bids were received Jan. 12, 1904, for paving 4,000 lin. ft. for a width of 50 ft.; thickness of wearing coat, 9 ins.: P. McDonnell, Duluth, Minn., granite, $1.68 a sq. yd.; curb, 78 cts. a lin. ft.; granite and sandstone, $1.36; curb, granite, $1.25.

INDUSTRIAL NOTES.

OUR READERS are requested to send short notes regarding new contracts that they are about to award, or have secured, for our news columns. Changes in firms' names and addresses are also wanted. "Write-ups" will not be inserted under any circumstances, as notes must contain news of interest to our readers. If our readers are in the market for any kind of machinery, tools, etc., we shall be glad to send them names of responsible firms making what they want.

M. J. DRUMMOND & CO., of New York, have removed to 182-184 Broadway, New York.

THE JEFFREY MFG. CO., Columbus, O., through its connection with the Ohio Malleable Iron Co., of the same place, are now in the field soliciting orders for malleable castings.

THE GREACEN DERBY ENGINEERING CO., 144 Front St., Perth Amboy, N. J., has been incorporated with a capital of $5,000 by S. B. Greacen and J. M. Derby, of Perth Amboy.

THE CUMBERLAND ENGINEERING CO., of Cleveland, O., has been incorporated with $25,000 capital stock, to do a general contracting business, by W. H. Pelton, A. R. Thompson, E. L. Dulz and N. B. Daerr.

THE MORAVA CONSTRUCTION CO., of Chicago, Ill., announces that its drafting rooms and general offices are now located at its works, 85th St. and Stewart Ave. The city office will remain at 1245 Marquette Bldg., Chicago.

THE WELLMAN-SEAVER-MORGAN CO., of Cleviland, O., announce the opening of a Pittsburg office at 515 Frick Bldg., in charge of Mr. Willard N. Sawyer, Manager. This office is opened for the convenience of the trade adjacent to Pittsburg. Mr. Sawyer has been with the company for a number of years, prior to which he was General Superintendent of the Tennessee Coal, Iron & Railroad Co.'s steel works at Ensley, Ala.

THE AMERICAN WATER SOFTENER CO., of Philadelphia, has opened a branch office in the Outlook Building, in Columbus, O., and will be in the immediate charge of Mr. W. H. P. Fisher, General Sales Agent, of the company, and Mr. A. C. Tomlinson, Manager of the Columbus office, who for some time has been assistant manager of the Philadelphia office.

THE N. J. FOUNDRY & MACHINE CO., of Murray St., New York, sends the following, and the names of manufacturers who have adopted a standard thread on all coach screws to fit the diamond expansion shield, and also the standard number of threads per inch on the various sizes: The standard threads are as follows: 5/16-in., 9 threads per in.; ⅜, 7 threads; ½, 6 threads; ⅝, 5 threads; ¾, 4½ threads per in. The following concerns furnish standard coach screws: American Iron and Steel Co., Buffalo Bolt Works, W. H. Haskell Mfg. Co., Hoopes & Townsend, Lamson & Sessions Co., Oliver Iron and Steel Co., Pawtucket Mfg. Co., Pottsville Bolt Works, Upson Nut Co., Payne Bolt Works.

THE CITY ENGINEERING & SUPPLY CO., of Los Angeles, Cal., has been incorporated with a capital of $25,000, of which $3,100 has been subscribed by F. J. Fischer, F. Rademacher, W. Stevens, and G. F. Stephenson, of Los Angeles.

THE RAILWAY & ELECTRIC EQUIPMENT CO., Buffalo, N. Y., announce its incorporaiton, with offices at Philadelphia, Buffalo, Cleveland and Chicago. It buys and sells for spot cash rails, locomotives, cars, steam and electrical machinery, and supplies of all sorts. Chas. F. Johnson, Mgr., 935 Ellicott Square.

THE THOS. H. DALLETT CO., of Philadelphia, Pa., has placed on the market a plug drill to be used by quarry owners. The company is prepared to send one of these drills on 15 days' trial. Mr. Albert E. Doe, Jr., formerly with Norcross Bros. Co., of Boston, has been appointed the New England agent of the Dallett Co.

THE M. GARLAND CO., manufacturers of special saw mill machinery, at Bay City, Mich., report the close of a very satisfactory year's business, and the following recent sales: Band resew outfit to Salling, Hanson & Co., Grayling, Mich., 52-in. Garland friction clutch pulley to Boyne City Lumber Co., 9-in x 36-ft. steam feed with Garland's rotary valves to Haak Lumber Co.; steel cable conveyor, with steam feed and edging hog, to Geo. D. Enery Co., for shipment to London England; machinery for steel cable lumber sorter, and Kline log loader to Eby Machinery Co., San Francisco, Cal., and six Kline log loaders, complete, to Milwaukee, Wis.

A. SAMUEL BERQUIST, 515 Bedford Ave., Brooklyn, N. Y., has completed one small suspension coal bunker for the Malden (Mass.) Electric Co.; one fair-sized bunker for the Ingersoll-Sergeant Drill Company's new shop at Easton, Pa.; two bunkers for the new power house for the Federal Sugar Refining Co. at Yonkers, N. Y. He has just received an order for a large-sized suspension coal bunker from the Jones & Laughlin Steel Co. and two orders from the Exeter Machine Co., of Pittston, Pa. The Interborough Rapid Transit Co. has also ordered one Berquist suspension bunker for handling the ashes from its new power house. This bunker is part of the Robbins Conveying Belt Co.'s scheme for the coal and ash handling system for the new underground railroad in New York.

PUBLICATIONS RECEIVED.

STEAM BOILERS, THEIR THEORY AND DESIGN.—By H. de B. Parsons, M. Am. Soc. M. E., M. Am. Soc. C. E., etc., Consulting Engineer and Professor of Steam Engineering, Rensselaer Polytechnic Institute. New York, London and Bombay: Longmans, Green & Co. Cloth; 6 × 9 ins.; pp. 375; many tables and 155 figures in the text. $4 net.

TESTING OF ELECTRO-MAGNETIC MACHINERY AND OTHER APPARATUS.—By Bernard Victor Swenson, E. E., M. E., of the University of Wisconsin, and Budd Frankenfield, E. E., of the Nernst Lamp Co. Vol. I. Direct Currents. New York: The Macmillan Co. Cloth; 6 × 9 ins.; pp. xxiii. + 420; tables and many figures in the text. $3.

ELECTRIC TRACTION.—A Practical Hand-Book on the Application of Electricity as a Locomotive Power. By John Hall Rider, M. Inst. C. E., M. Inst. E. E., M. Inst. M. E., Chief Electrical Engineer, London County Council Tramways. London and New York: Whittaker & Co. Cloth; 5 × 8 ins.; pp. 453; tables and 194 illustrations, mostly in the text. $3.

THE METRIC FALLACY.—By Frederick A. Halsey. And the Metric Failure in the Textile Industry. By Samuel S. Dale. New York: D. Van Nostrand Co. Cloth; 6 × 9 ins.; pp. 231; tables and illustrations. $1.

MASSACHUSETTS BOARD OF HARBOR AND LAND COMMISSIONERS.—Report for 1902-3. Boston: Pub. Doc. Cloth; 6 × 9 ins.; pp. 78; two folding maps.

U. S. WEATHER BUREAU.—Report of Willis L. Moore, Chief, for 1903. Washington, D. C.: U. S. Department of Agriculture. Paper; 6 × 9 ins.; pp. 46.

REPORT ON INVESTIGATIONS MADE IN JAVA IN THE YEAR 1902.—I. Report of Trip. II. Plantæ Ahearnianæ. III. The Method of Work on the Forest Flora of Java. IV. The Botanical Institute at Buitenjorg. By Elmer D. Merrill, Botanist in the Bureaus of Agriculture and Forestry. Forestry Bureau, Bulletin No. 1, Capt. George P. Ahearn, Chief of Bureau. Manila: Department of the Interior. Paper; 7 × 10 ins.; pp. 84; 10 plates.

STATISTICS OF THE SIX STATES OF AUSTRALIA AND NEW ZEALAND, 1861-1902.—Compiled from Official Sources. T. A. Coghlan, Statistician of New South Wales. Sydney: Pub. Doc. Paper; 6 × 8 ins.; pp. 94; tables. 40 cts.

REPORT OF THE SURGEON-GENERAL, U. S. NAVY, 1902-3.—Paper; 6 × 9 ins.; pp. 295; tables and figures in the text.

BOSTON STATISTICS DEPARTMENT.—Report for 1902-3. Edward M. Hartwell, Secretary. Boston: Pub. Doc. Paper; 6 × 9 ins.; pp. 26; tables.

TRADE PUBLICATIONS.

CONCRETE BUILDING CONSTRUCTION.—The American Hydraulic Stone Co., Century Building, Denver, Colo. Paper, oblong; 6 × 4½ ins.; pp. 52; illustrated.

This pamphlet describes a system of concrete block construction, for both plain and ornamental work, which has been used for a number of buildings of different kinds, including cottages, factories and hotels. The illustrations show the buildings, and also the method of making the blocks.

CONCRETE BLOCK CONSTRUCTION.—The R. B. Coltrin Mfg. Co., 140 W. Main St., Jackson, Mich. Paper; oblong; 11 × 9 ins.; pp. 24; illustrated.

The use of concrete blocks in building construction is extending quite rapidly, and this pamphlet describes the Coltrin blocks and the molds used in making them, giving news also of residences and factories built of this material. There are also notes as to the proportions of materials and methods of mixing the concrete.

GAS AND GASOLINE PUMPING ENGINES.—Columbus Machine Co., Columbus, O. Paper; 6 × 9 ins.; pp. 4; illustrated.

A list of sizes, horse power, etc., and several half-tones fill the pages of this folder.

WATER PIPE, VALVES, HYDRANTS.

Office Board of Public Works, Grand Rapids, Mich., Jan. 23, 1904.

Sealed proposals will be received at the office of the Board until February 5, 1904, at 1:30 p. m.

For furnishing F. O. B. cars Grand Rapids Mich., the following:

103 tons 6-inch Cast Iron Pipe.,
70 " 8 " " " "
30 " 10 " " " "
276 " 12 " " " "
330 " 16 " " " "
50 " 20 " " " "
158 " 24 " " " "
377 " 30 " " " "
47 " Regular Special Castings.
50..... 6-inch Valves,
0..... 8 " "
3.....10 " "
8.....12 " "
4.....16 " "
3.....20 " "
3.....24 " "
1.....30 " "
50 Hydrants.

According to the specifications on file at the office of the City Engineer.

The Board reserves the right to reject any or all bids.

Each bidder shall deposit with his proposal a certified check certificate of deposit, or Surety Company Bond, payable to the order of James E. Keegan, President, in the sum of 5 per cent. of his proposal, to be forfeited to the City of Grand Rapids in case he shall fail to enter into contract, in accordance with his proposal, should his proposal be accepted by the Board of Public Works.

All proposals must be made upon blanks that will be furnished upon application at the office of the City Engineer. By order of the board.

JAMES E. KEEGAN, President.
L. W. ANDERSON, City Engineer.
Attest: JNO. C. BROWN, Clerk. 4-2t

PUMPING ENGINES AND BOILERS.

East Orange, N. J.
Clerk's Office, East Orange, N. J., Jan. 25, 1904.

Sealed proposals will be received by the City Council of East Orange, at their council room, in the City Hall, on Main Street, on the fifteenth day of February, 1904, at eight o'clock P. M., for two (2) Pumping Engines, each having a capacity of four million (4,000,000) gallons in twenty-four (24) hours, against two hundred (200) feet head; also three (3) Water Tube Boilers, with Condensers, Feed Pumps, Feed Water Heater, Economizer, Valves and Piping, the whole to be erected on foundations prepared by the City, at White Oak Ridge.

Specifications and plans may be seen at the office of C. C. Vermeule, 203 Broadway, New York, also at the office of the City Engineer, City Hall, East Orange.

All bids must be filed with the City Clerk, in sealed envelopes endorsed "Proposals for Pumping Engines, East Orange Water Works," and addressed and delivered to Stephen M. Long, City Clerk, not later than the date and time above named.

The City Council reserves the right to reject any or all proposals.

STEPHEN M. LONG, City Clerk.
4-3t

MACADAM STREETS AND ROADS.

Hamblen County, Tenn.

Sealed proposals will be received by the Board of Pike Commissioners of Hamblen County, Tennessee, at the office of the Board, Merchants National Bank Building, Morristown, Tennessee, until 9 o'clock A. M., Thursday, Feb. 25, 1904, for grading and macadaming certain streets and roads in the town of Morristown and in Hamblen County. The amount of the appropriation for the work is $50,000.

Certified checks will be required with all bids, and the successful bidder will be required to make bond for 50 per cent. of contract as required in Chapter 182, Acts of General Assembly of the State of Tennessee, 1899.

The right is reserved to reject any or all bids.

For specifications, form of proposals and instructions to bidders, address the Chairman of the Board at Morristown, Tenn.

W. S. QUILLEN, Chairman
J. W. DAVIS,
WILEY REED,
Board of Pike Commissioners.
J. L. LUDLOW,
Consult. Engr., Winston-Salem, N.C. 4-1t

3,000,000 CU. YDS. OF FILLING.

Sealed proposals will be received by the South Park Commissioners at their office, 57th Street and Cottage Grove Avenue, Chicago, until 2:30 P. M., Wednesday, March 16th, 1904, for furnishing and delivering the filling required for Grant Park, Chicago, approximately estimated at 3,000,000 cubic yards. Specifications and other information may be obtained at the above-named office.

Each bidder shall deposit with his bid a certified check, made payable to the South Park Commissioners, drawn upon some bank doing business in Chicago, for $3,000, as a guarantee that he will enter into a contract with the South Park Commissioners for furnishing the filling in accordance with the specifications therefor at the price named in his proposal.

Bids must be made on the form furnished by the South Park Commissioners.

The South Park Commissioners reserve the right to reject any and all bids.

SOUTH PARK COMMISSIONERS,
By Edward G. Shumway, Secy.
Chicago, Jan. 22, 1904. 4-1t

GONDOLA HOPPER CARS.

Winnipeg, Man.

Sealed tenders addressed to the chairman of the committee on works for the supply of 25 gondola hopper cars, will be received at the office of the undersigned up to 8.30 p. m., on Tuesday, February 9, 1904.

DESCRIPTION.

Capacity, cubic ft. 800, capacity load, lbs. 80,000; size about 8 × 30 ft. Box arranged so that it can be increased in height to capacity of 1,400 cubic feet. Cars to be strictly self-discharging of broken stone and coal. Separate price for air brake.

Plans and specifications of cars to be submitted with bids. Date of delivery not later than 31st of May next.

Each tender must be accompanied by an accepted check or cash deposit for $1,000, which will be subject to forfeiture in case of failure to enter into a written contract with approved sureties if called upon to do so.

The city reserves the right to reject any or all tenders or to accept any bid which appears advantageous to the City of Winnipeg.

C. J. BROWN, City Clerk.
City Clerk's Office, Winnipeg, Can., Jan. 22, 1904. 4-1t

4,500-FT. SEWERS.

NOTICE TO CONTRACTORS.

Independence, Kan., Jan. 9, 1904.

Sealed bids will be received at the office of the City Clerk of the City of Independence, Kan., up to 6 o'clock p. m., Tuesday, Jan. 26, 1904, for the construction of the following described Sewers,, bids for each Sewer to be separate:

1. Commencing at the manhole in Magnolia St. and extending south through block 75. total distance, 350 ft.

2. Commencing at the manhole in 2d St. and extending west through blocks 50, 51, and 52; total distance 1,145 ft.

3. Commencing at the manhole in Magnolia St. and extending north through block 69. total length, 340 ft.

4. Commencing at the manhole in L. T. St. and extending north through outlot 23 and block 90; total length 720 ft.

5. Commencing at the manhole in 2d St. and extending west through blocks 47, 46 and 45; total length, 1,145 ft.

6. Commencing at the manhole in Poplar St. and extending north through blocks 86, 83 and 62; total length, 1,110 ft.

Each bid must be accompanied by a certified check of 5% of the bid. Council reserves the right to reject any and all bids.

ALICE V. RAY, City Clerk
2-3t

PAVING—GRADING.

Freeport, Pa.

Bids will be received by the Borough of Freeport, Armstrong Co., Pa., until 7 p. m., Wednesday, Feb. 10, 1904, for the Grading, Curbing and Paving of Market Street, in said borough, from Third Street to W. P. R. R.; and Fourth Street, in said borough, from Buffalo Street to Allegheny River, approximating 3,074 cu. yds. grading; 10,620 sq.yds. paving; 6,175 ft. curbing; 4 manholes; 2 inlets.

Plans and specifications may be seen at office of G. B. Findley, Engineer, in said borough, who will furnish proposal blanks. Bids must be accompanied by a certified check for $500, payable to J. H. Ashbaugh, Borough Treasurer, as a guarantee that the contract will be entered into in case it is awarded. The right is reserved to reject any or all bids.

JOHN J. MARDORF, Borough Clerk.
4-1t

PAVING EIGHT STREETS.

Cohoes, N. Y., Jan. 20th, 1904.

Notice is hereby given that The Public Improvement Commission of the City of Cohoes will receive sealed proposals for the construction of the following work:

Paving and curbing Ontario street from the west branch of the Mohawk river to Continental avenue.

Paving and curbing of High street.

Paving and curbing of Willow street, from Vliet street to Mangam street.

Paving and curbing of Mangam street, from Johnston avenue to Willow street.

Paving and curbing of Younglove avenue, from Grant street to High street.

Paving and curbing of Vliet street, from Mangam street to Reservoir No. 3.

Paving the alley between Congress and Lancaster streets, from Hart street to Columbia street.

Paving alley between Congress street and Main street, from Hart street to George street.

All of such work to be done in accordance with the specifications therefor, and proposals to be accompanied by the security required by the specifications; such proposals to be received and opened by the said Commission at its rooms in the City Hall building in the City of Cohoes, N. Y., on the 10th day of February, 1904, at 3 p. m.

Bids for paving will be received for either of the following materials:

Repressed vitrified brick; repressed vitrified block; sheet asphalt; asphalt block; granite block; Medina standstone; resinate-creosote, and bitulithic pavement.

Specifications may be procured from the Clerk or the Engineer.

THE PUBLIC IMPROVEMENT COMMISSION OF THE CITY OF COHOES.
By WILLIAM J. ELLIOT, Clerk.
EDWARD HAYES, Engineer. 4-2

PROPOSALS will be received at the Bureau of Supplies and Accounts, Navy Department Washington, D.C., until 12 o'clock noon, Feb 9, 1904, and publicly opened immediately thereafter, to furnish at the navy yards, Portsmouth, N.H., and Boston, Mass., a quantity of wire and cable, conduit and fittings, electrical supplies, bolts, nuts, washers, rivets, miscellaneous hardware and hand tools, drills, hydraulic jacks, files, ratchets, deck winch, traveling cranes, furnaces, ash, white and yellow pine, spruce, brass rod, sheet copper, bar and sheet steel, galvanized sheet steel, solder, sheet lead, bar iron, magnesia blocks and pipe covering, asbestos millboard, hair felting, flax packing, whale oil, engine oil, lard oil, sperm oil, Japan drier, asphaltum varnish, polishing paste, granular sodium carbonate, tallow, gum camphor, brass and copper pipe, lead pipe, iron pipe, valves, brass and iron pipe fittings, lavatories, blank books, pencils, pads, typewriter paper, shipping tags, miscellaneous stationery, toilet paper, laundry and toilet soap, sponges, hair and steel wire brushes, marine cement, oakum, flax twine, plain and khaki cotton twine, lampwick, lacing leather, rigging and bellow leather, buckets, hand and leg irons, squilgees and emery cloth. Blank proposals will be furnished upon application to the Navy Pay Offices, Portsmouth, N.H., and Boston, Mass. H. T. B. HARRIS, Paymaster-General, U. S. Navy. 3-2t

DEPARTMENT OF THE INTERIOR.—United States Geological Survey, Washington, D. C., January 23, 1904.—Sealed proposals (in duplicate) will be received until 2 o'clock p. m., February 29, 1904, at the Department, and will then be opened, for furnishing 150,000 barrels or more of first-class Portland cement, delivered at the dam site near the mouth of Tonto Creek, on Salt River, Arizona. Specifications and forms of proposals may be obtained upon application to the Director of the U. S. Geological Survey, Washington, D. C., or to Arthur P. Davis, Phoenix, Arizona. Each bid must be accompanied by a certified check payable to the order of the Secretary of the Interior, for the sum of $10,000, as a guarantee that the bidder will, if successful, promptly execute a satisfactory contract, and furnish bond in the sum of 50 per cent of contract price, for the faithful performance of the work. The right is reserved to reject any and all bids and waive technical defects, to accept one part and reject the other, as the interests of the service may require. Proposals should be addressed to the Secretary of the Interior, and be marked, "Proposals for furnishing cement, Salt River, Arizona." Bidders are invited to be present at the opening. E. A. HITCHCOCK, Secretary. 4-5t

PROPOSALS will be received at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 12 o'clock noon, Feb. 2, 1904, and publicly opened immediately thereafter, to furnish at the Navy Yard, New York, N.Y., a quantity of water-tight bells, lighting wire, incandescent lamps, electrical supplies, machine screws, ash, cedar, cherry, mahogany, oak, white and yellow pine, poplar, spruce, nickel steel forgings, pipe fittings, radiators, brass condenser tubes, boat hook handles, baseballs, athletic supplies, oars, evaporated apples, prunes, evaporated peaches, tinned ham, salt beef, tinned corned beef, beans, tinned biscuit, butter, tea and various machine tools, comprising winches, drum hoist, lathes, boring and mortising machines, wire cutting machines, grinders, shaper, planer, drop hammer, etc. Blank proposals will be furnished upon application to the Navy Pay Office, New York. H. T. B. HARRIS, Paymaster-General, U. S. N. 3-2t

SEWERAGE SYSTEM.

Borough of Vailsburgh, N. J.

Sealed proposals for building a Sewerage System for the Borough of Vailsburgh, N. J., in accordance with the contract and specifications to be furnished by the Mayor and Council, will be received at the Borough Hall at 8:30 p. m., on Wednesday, Feb. 10, 1904, and at that time and place will be publicly opened and read. Bids will be considered on both the unit and lump sum basis.

The work includes the construction of
2,981 feet of 12-inch pipe;
11,000 feet of 10-inch pipe;
27,863 feet of 8-inch pipe;
122 manholes;
32 flushtanks;
4,000 cubic yards of rock.

Each proposal must be accompanied by a certified check for $5,000, and a certificate of some surety company authorized to transact business in the State of New Jersey, that it will execute, as surety, the bond required by said contract.

Plans and specifications can be seen at the office of the chief engineer, No. 22 Clinton street, Newark, N. J. The right is reserved to reject any and all bids.

By order of the Mayor and Council.

JOHN HENRY THIEBERATH, President of Council, Acting Mayor.
ANDREW R. FITZSIMONS, Clerk.
EUGENE A. McMURRAY, Chief Engr. 4-2t

U. S. ENGINEER OFFICE, Jones Bldg., Detroit, Mich., Jan. 18, 1904.—Sealed proposals for Dredging under continuing contracts, for improving Middle and West Neebish Channels, St. Marys River, Mich., at Little Rapids and Nine-Mile Point, will be received here until 2 p. m. (Standard time), March 10, 1904, and then publicly opened. Information furnished on application. W. H. BIXBY, Major, Engrs. 3-2t 8-2t

NOVEMBER—A Great Month in the Maine Woods—

DEER, MOOSE AND SMALL GAME PLENTIFUL

November in the heart of the Maine forests, ramping through the thickets of Kineo, or Katahdin, or roaming around the shores of the beautiful Rangeleys affords more real enjoyment to the sportsman than the other eleven months combined.

The hardy guide with his knowledge of woodcraft, points out the deep recesses where the lordly moose and the wary deer are hiding. The sportsman moves with the utmost caution, a lesson which the guide has firmly impressed upon him; he reaches a vantage point; the game stands before him in the open; a steady arm, a careful eye, and his quest is successful. Back to the camp, and in a short while the guide has supper all ready: the appetizing odor of broiled partridge and grouse, delicious woodcock, baked duck, and the savory scent of a nicely browned sirloin of venison, make known the repast with which the hunters regale themselves. After supper the stools are pushed near to the blazing pine logs, and thrilling episodes and encounters are recited and listened to attentively, a few hours of smoking and talking, then with a satisfied look at the day's quarry, the good old cot of pine boughs is occupied; and slumber tops the day's enjoyment. This is a true pleasure, good sport and sure health in the invigorating atmosphere of Maine's woodlands, but if you prefer to stop at a hotel, you can do so. The beautiful little booklet called "Fishing and Hunting," published by the General Passenger Department of the Boston & Maine R. R., Boston, tells all about Maine's game region and how to get there. Send two cents and it will be mailed to you.

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